Robust Political Economy

Clarifications and Applications

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Introduction

1.1. INTRODUCTION

The standard approach to normative institutional analysis involves crafting a model based on a given set of assumptions, deriving the consequences of that model, and comparing those consequences to some more or less specified conception of a desirable outcome. A small but influential group of political economists have rejected this approach, arguing instead that we should place extra weight on particularly bad outcomes. The central idea of robust political economy is that we should not evaluate institutions primarily on how they behave under normal conditions but on their ability to avoid disaster.

The aim of this thesis is to reveal the strengths and limitations of the robust political economy approach and to develop a more subtle version sensitive to the messy reality of the real world. To do so, I will use the robustness paradigm to deal with substantive issues in political economy before arguing that the normative world is not as straightforward as implied by the prevailing conception of robust political economy and normative institutional analysis more generally.

Institutions alter outcomes along many dimensions and the exact nature of change will often be uncertain and context-dependent. Further, the normative implications of institutions are multidimensional and inherently incommensurable. Ultimately, the factors complicating normative institutional analysis require that the political economist wishing to reach normative conclusions engage in indeterminate moral argument, rather than reaching hard scientific conclusions. In short, normative economics needs to give up its pretensions of value-freedom and its algorithmic process of evaluation.

This chapter will detail the history and rationale of robust political economy and provide an outline of the chapters to come.

1.2. ROBUST POLITICAL ECONOMY

The idea of robustness is well-developed in the fields of statistics, engineering, ecology, and biology (Jen 2005; Carlson & Doyle 2002). While the specific understandings of what makes a system robust varies by context and theorist, the central idea is that a system is robust when desired system characteristics are maintained in the face of external shocks and/or the misspecification of internal parameters. External shocks are of potential relevance to any open system, while parameter misspecification is of relevance only to systems which are designed or selected based on some theory.

There are, broadly speaking, two aspects of robustness in this sense: the maintenance of *particular characteristics* and the maintenance of *desirable performance*. If the first aspect is emphasized, robustness becomes synonymous with stability: a system is robust to the extent that it is *insensitive* to external shocks and internal uncertainty. The view of robustness taken in this thesis is focused primarily on the second aspect: a system is robust to the extent that it *continues to perform well* under a variety of conditions. Robust political economy is the idea that political institutions should be evaluated not only on how they behave under best-case assumptions or our best estimate of which assumptions actually hold but also under worst-case assumptions. An institution is robust to the extent that it continues to perform well in the face of adverse conditions and mistaken theoretical assumptions. Taking this view, robustness and stability can each exist in a system without the other. A system which is highly responsive to change could simultaneously be very unstable and very robust. A system of polycentric law, for example, may be constantly rearranging itself as conditions change while maintaining a high level of citizen welfare. Conversely, a totalitarian regime may maintain its essential characteristics in the face of external shocks through harsh repression, being simultaneously stable and non-robust.

The idea, though not the language, of robustness has a long history in political economy and has been of increasing interest to scholars in the public choice and Austrian schools of economics. The central tenet of robust political economy can be identified in the work of David Hume (1739), Adam Smith

(1759, 1776), John Stuart Mill (1861, 1869), and F.A. Hayek (1949). Mill's warnings against naïve confidence in human nature are a good example:

> Whether the institution to be defended is slavery, political absolutism, or the absolutism of the head of a family, we are always expected to judge of it from its best instances …Who doubts that there may be great goodness, and great happiness, and great affection, under the absolute government of a good man? Meanwhile, laws and institutions require to be adapted, not to good men, but to bad. (Mill 1869: Ch. 2)
>
> [T]he very principle of constitutional government requires it to be assumed that political power will be abused to promote the particular purposes of the holder; not because it always is so, but because such is the natural tendency of things, to guard against which is the especial use of free institutions.(Mill 1861: Ch. 12)

Adam Smith's body of work, when considered as a whole, is perhaps the best classical example of robust political economy. In *The Theory of Moral Sentiments*, Smith argues that people have significant concern for others. In *The Wealth of Nations*, he shows that even if people were selfish, a market order would produce generally beneficial outcomes. That is, the market is robust to the existence of knaves.

The idea also seems to have had some genuine political impact, with James Madison's celebrated warning in *Federalist* 51 against treating rulers as angels. The common theme which unites these thinkers is the importance of distinguishing between the best empirical model from the most prudent model for institutional choice, with the latter being systematically more pessimistic than the former. While we may believe people to be angelic, or at least basically moral, a robust institution allows us to hedge our bets by containing the damage inflicted by knaves.

This line of reasoning has been developed most fully by Geoffrey Brennan and James M. Buchanan (1981, 1983, 1999, 2000). In recent years, the idea has been taken up by a number of other political economists (Anderies et al 2004; Beaulier & Subrick 2006; Boettke 2000; Boettke & Leeson 2004, 2006; Boettke & López 2002; Boettke et al 2005; Crampton & Farrant 2006, 2008; Farrant 2004; Farrant & Paganelli 2005; Janssen et al 2007; Leeson & Subrick 2006; Leeson et al 2006; Levy 2002;

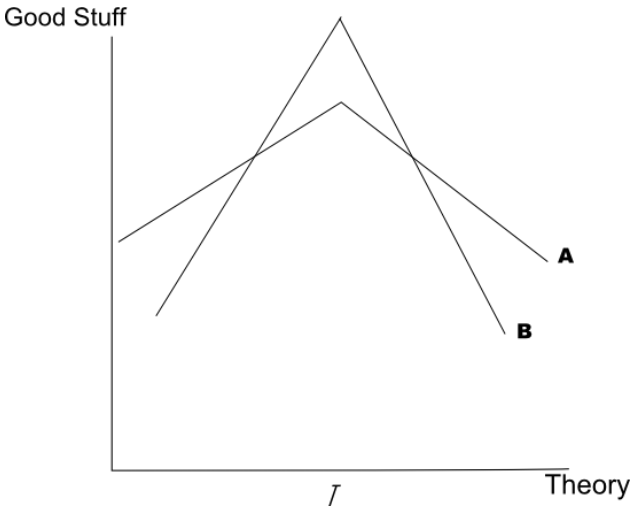
Levy & Peart 2006; Subrick 2006; Taylor & Crampton 2009; Voigt 2006; Wagner 2006; Walsh 2005).

A robust institution will often perform more poorly than a fragile one under ideal conditions but proves its worth when conditions deteriorate. Absolute government power, for example, is preferable to constrained government when governors are wise and benevolent. As soon as we relax either assumption, though, absolute power begins to become very harmful. The price we pay for robustness is the frustration of wise and benevolent rulers (Brennan & Buchanan 1999: 62). The higher levels of economic freedom in authoritarian capitalist East Asian countries than in western democracies show that unconstrained government can promote freedom. The disastrous performance of other autocracies shows that such wise management should not be relied upon.

David Levy (2002) likens Brennan and Buchanan's robust political economy to John Tukey's Robust Statistics. A robust statistical technique is one which continues to perform adequately when its central assumptions, such as normality of the data, are false. Similarly, a political institution is robust when it continues to perform adequately when *its* central assumptions, such as the benevolence of politicians, are false. For Levy, a robust institution is one in which the harm from deviations from best-case assumptions is bounded. The suboptimal performance of robust institutions when best-case assumptions *do* hold is analogous to the insurance premium we must pay if we wish to avoid greater hardship should the worst case ever eventuate.

Levy offers a simple diagrammatic representation of institutional robustness, which graphs the desirability of a given institution ("good stuff," as Levy calls it) as a function of the deviation from ideal assumptions. Figure 1.1 shows Levy's basic model, with institution B performing better than A under ideal conditions but being far more fragile to deviations from best-case assumptions.

Figure 1.1: Levy's Robustness Model

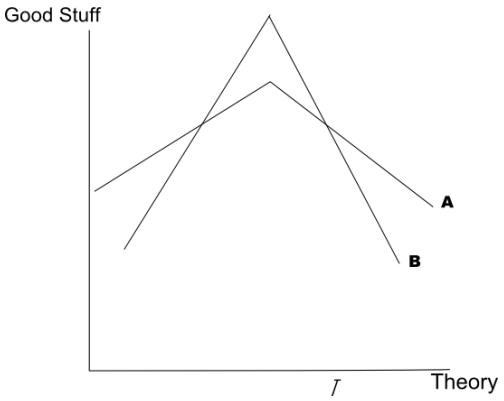


"Good Stuff"" is a generic metric which could represent welfare, equality, liberty, etc or any weighted combination of various desirable outcomes. The point *T* represents the case when the best-case set of assumptions holds true. As we move away from this point, the institution is less conducive to producing good stuff. The "Theory" metric could measure any variable which affects the performance of political institutions, such as the degree of self-interested behaviour.

For Levy, *T* represents best case assumptions; benevolent planners, for example. The basic schema, though, is just as useful for considering deviations from the most empirically supported assumptions, which may or may not be the best case. This would mean that T would not necessarily coincide with the peak of graphs A and B, and deviations from T could result in more good stuff being produced, as is shown in figure 1.2.

At the core of robust political economy is the separation of the best descriptive model of how the world works from the appropriate model on which to base institutional choice. Brennan and Buchanan develop robust political economy as a tool in choosing constitutional rules, but its usefulness extends far beyond constitutional choice. To decide when worst-case thinking is appropriate, we need to look at the arguments Brennan and Buchanan offer in support of robust political economy.

Figure 1.2: The Empirically Best Case



1.3. BRENNAN AND BUCHANAN'S RATIONALE FOR ROBUST POLITICAL ECONOMY

Brennan and Buchanan (1999: Ch. 4) attempt to justify the use of the *Homo Economicus* model of human behaviour at the level of constitutional choice, despite its admitted empirical shortcomings. While people often act altruistically, they argue, the whole point of constitutional rules is to offer protection against those situations in which individual interests diverge and people pursue their own interest at the expense of others. If rulers were angels constitutional constraints would be redundant, and so any constitution-making exercise must assume that men are knaves.

Brennan and Buchanan (1999: 59-61) use the example of hiring a contractor to perform some work. In doing so, we will normally attempt to ensure that we are dealing with an honest person. When drawing up a contract, however, we make the working assumption that he is dishonest and will defraud us if given the opportunity. Despite the fact that we do not believe this to be true, we must assume so for the sake of contract-making, since dishonest behaviour is exactly what formal contracting is meant to guard against. A contract written with an honest tradesman in mind will fail to serve its essential purpose and will be just as effective as no contract at all. Empirical reality, on this account, should not affect the model of behaviour we choose to use when deciding on rules but rather the relevance of the entire rule-making exercise.

While Buchanan thinks people often, but not always, act out of self-interest, his theories have value to those less convinced of selfish rational-choice as a descriptive model of human behaviour. Even if people are often motivated by moral concerns and value the well-being of others, it is dangerous to rely on this. Even if an assumption of self-interest is empirically unfounded, it is wise to assume that people are selfish when comparing alternative institutions. This insures against the worst possible outcomes. By assuming the worst-case view of human nature, or any other politically relevant variable, we are putting extra weight on particularly bad outcomes. Taking a worst-case view has costs: in the tradesman example, formal contracting has costs, and efforts to live up to the letter of the contract may prevent an angelic tradesman from doing the best possible job for his customer.

1.3.1. Quasi-Risk Aversion

The justification for engaging in the constitutional enterprise at all comes from the idea of "quasi-risk aversion": since the costs of the world being worse than we expect exceed the benefits of it being better, we should evaluate institutions on something close to worst-case assumptions. In terms of the spectrum between best- and worst-case assumptions, welfare decreases at an increasing rate as we move away from the best-case. This implies that a completely risk-neutral decision-maker should behave as if they are risk-averse (Brennan & Buchanan 1999: 61-68).

Brennan and Buchanan (1999: 64-67) offer the example of a monopolist choosing to charge either the profit-maximising or socially optimal price. If the simple empirical record shows that such monopolists choose each pricing rule half the time, evaluating alternative rules with a simple average of the two prices may seem appropriate. This would understate the average welfare costs of such a situation, however, since there is a convex relationship between welfare and output. The welfare loss associated with the monopolist charging the full profit-maximising price half the time consequently exceeds that of the average price being charged all the time. The appropriate assumptions about monopolist behaviour will therefore be closer to the worst-case end of the spectrum than a cursory glance at the empirical record might suggest. Brennan and Buchanan (1999: 67-68) then argue that the

quasi-risk aversion justification for systematically pessimistic assumptions can be generalised to any situation, since the good done by angels will be less than the harm done by knaves.

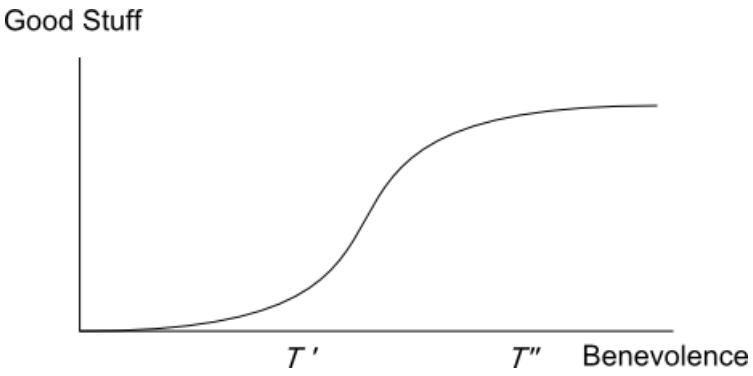
Brennan and Buchanan do not spend any time establishing the proposition that politics does in fact exhibit such "standard convexity properties." This is an empirical question and surely depends on the particular assumptions we make. Since constitutional political economy is primarily concerned with the self-interested or altruistic behaviour of political representatives, I will address this question first. Robust political economy, however, has been used more broadly than merely considering the public-spiritedness of political representatives. It will be therefore be useful to consider how broadly the convexity assumption remains valid.

Convexity – in this context, the tendency for the harm of a negative deviation from *T* to be greater than the benefit of an equal positive deviation – seems a reasonable assumption when it comes to planner benevolence in contemporary liberal democracies. In relatively well-functioning governments with low levels of corruption and oppression, the quantity of additional good stuff an angelic ruler could plausibly produce seems tightly limited. A corrupt or vicious government, on the other hand, could wreak major havoc. When we consider the already corrupt and vicious governments of history and today's poorer countries, however, the effect seems to be reversed. When a government is already doing its best to exploit its citizens, the extra harm it can do were it even more evil seem minor in comparison to the potential benefits of it being even a little less evil. The relationship between planner benevolence and good stuff, in other words, seems to asymptote at the extremes of sainthood and knavishness, as is illustrated in figure 1.3.

The convexity properties Brennan and Buchanan use to justify robust political economy are present on the right section of the graph but absent on the left. Worst-case political economy is appropriate on quasi risk-aversion grounds at point *T''* but not at point *T'*. In fact, since the function is concave at *T'*, we should base institutional comparisons upon systematically more *optimistic* assumptions than the empirical record would suggest. Of course, the level of benevolence we suppose will likely be much

lower than in more humane polities, since actual benevolence is so much lower towards the left of the graph.

Figure 1.3: Non-linear good stuff



This relationship is a simple consequence of diminishing returns to effort directed at achieving some goal. Let us suppose, simplifying things slightly, that the goal of completely self-interested planners – those at the extreme left of the above graph – is to extract as many resources from the public as possible (which, I will suppose, would minimise good stuff), while the goal of very benevolent planners is to maximise good stuff. Planners between these two extremes wish to achieve a weighted combination, the weighting determined by their position on the graph, of these two goals. Relatively benevolent planners, say those at T", will be able to secure many gains in good stuff for relatively little sacrifice of their own interests. Moving slightly to the right of T", the gains are still relatively easy to make. As we move further right, though, increases in good stuff come at proportionally larger losses in rent-extraction. Similarly, it becomes increasingly difficult for relatively knavish planners to extract rents as they move leftward on the graph. Once all the low-hanging fruit has been picked, it becomes difficult for planners to achieve their goals, regardless of the nobility of those goals.

Things become even more complicated when we consider relevant independent variables other than planner benevolence. It may also prove useful to consider the robustness of political institutions to the existence of ignorant or irrational voters, incompetent planners, and any number of other factors

which affect citizen wellbeing through the political system. Some of these surely exhibit the convexity properties required to justify a quasi risk-aversion approach but, just as surely, some do not. Brennan and Buchanan offer another argument for taking systematically pessimistic assumptions. This argument, however, is not particularly compelling.

1.3.2. Gresham's Law

The second argument offered by Brennan and Buchanan for taking a worst case view of human motivation is based on a political analogue Gresham's Law: the idea that bad behaviour drives out good and that altruism is thus fragile and should not be relied upon (Brennan & Buchanan 1999: 68-73). This is a theoretical argument for the proposition that people will on average behave more knavishly than their underlying preferences might suggest. It is not clear, however, whether this is an argument for taking a view of human nature more pessimistic than the simple empirical record suggests when evaluating institutions.[1] This depends on what kind of empirical evidence we rely upon. If we could somehow see the real preferences people have over altruistic and self-interested behaviour abstracted from how they actually behave, Gresham's law of politics would indeed provide an argument for the value of robust political economy. If, more plausibly, the empirical record details how people *actually* behave, Gresham's law will have already taken effect and be reflected in the empirical record. Taking a systematically more pessimistic view would double count the effect.

1.4. THE APPLICABILITY OF ROBUST POLITICAL ECONOMY

In short, we cannot make a blanket assumption that robust political economy is appropriate in all institutional analyses. Rather, we need to consider two factors: convexity and likelihood of negative deviations. Unless the convexity properties discussed above are present, Brennan and Buchanan's justification for robust political economy is absent. Of course, being risk-averse in the political sphere could be considered prudent, but such an approach would need to be based on a normative argument

[1] It could be the case, however, that self-reinforcing knavery produces an absorbing equilibria from which we cannot escape. The welfare losses of being stuck in such a situation may well swamp any short-term concerns and thus deserve extra consideration. It is unclear, however, whether constitutional rules designed to lower the welfare costs of knavery will be effective in preventing the spread of knavery to others.

about the purpose of political institutions. Robust political economy, then, is only appropriate when the harm caused by negative deviations from ideal or empirically-likely conditions exceeds the benefit caused by positive deviations. Secondly, the extent to which we should make systematically pessimistic assumptions depends on the probability that such unfavourable conditions will eventuate. If we can be reasonably confident that rulers will remain benevolent, our assumptions should only be mildly pessimistic, even in the presence of convexity.

1.5. THESIS PLAN

The aim of this thesis will be to reveal both the strengths and limitations of the robust political economy approach to institutional comparison. This will combine public choice analysis with empirical testing of the central hypotheses of robust political economy and discursive analysis of the appropriate approach to take when comparing constitutions.

Chapter two will evaluate Brennan and Buchanan's assertion that constitutions are capable of protecting freedom when it would otherwise be abrogated. Many theorists have questioned the bindingness of constitutions, some suggesting that mere parchment enforced by the very organisation it is meant to constrain can do nothing to protect freedom. This chapter will largely be concerned with substantive constitutional constraints as embodied in bills of rights, as opposed to structural features such as a separation of power specified in the constitution.

While constitutional political economy deals with both types of constitutional provision, substantive constraints are essential to Brennan and Buchanan's normative project of protecting certain liberties by placing them firmly in the private sphere. Structural constraints may be capable of mitigating the tyranny of the majority, but in no sense can they keep certain cherished values out of politics altogether. Only substantive rules protecting religious practice or speech, for example, are potentially capable of doing this and their effectiveness is far from clear.

After considering theoretical arguments for and against the effect of substantive constitutional rules and offering hypotheses on when such rules will be effective, I will conduct an empirical test using

the case of press freedom as an example. The results of this analysis provide insights into the effectiveness of constitutions, including the conditions in which they are effective, and points to both strengths and weaknesses in the conception of constitutions as protecting against the worst-case scenarios of governance.

Chapter three will focus more closely on a particular deviation from the ideal state of the world: a sudden spike in illiberal preferences. After arguing that such spikes are common and should be given consideration in institutional analysis, I will argue that structural constitutional constraints which increase the size of the coalition required for policy change can reduce the probability that such preference spikes will come to be reflected in policy but can also increase the duration of illiberal policy. While this is a difficult hypothesis to test empirically, I will argue that structural constraints delayed both the enactment and repeal of alcohol prohibition in the early twentieth century and increased its total duration.

This shows that alternative institutions will often involve tradeoffs even when we restrict our normative attention to something as precise as negative freedom. Whether the negative libertarian should prefer a relatively constrained or unconstrained democracy depends on a number of factors which are not clearly commensurable. This suggests that institutional evaluation is normatively complex, and that political economists therefore need to be sensitive to moral arguments.

Chapter four expands upon this theme of the essentially moral character of institutional analysis by providing a critique of the foundations of welfare economics. Whereas many Austrian economists and others have criticised the epistemic arrogance of welfare economists and counselled against the careless attribution of individual utility functions and the social aggregation thereof, I will make the stronger argument that welfare economics as it is currently practised is simply impossible, regardless of epistemic concerns.

A number of findings in psychology and behavioural economics suggest that choices do not simply *reveal* pre-existing preferences but *construct* them. The finding that contextual factors deemed irrelevant by rational choice theory influence human decision-making is simply not consistent with a

well-defined preference function existing independently of choice and requires the abandonment or radical reworking of rational choice theory. Many behavioural economists have argued that this shows people are irrational. I will suggest instead that rationality should not be thought of as an optimisation process but a constructive process in which embodied humans pursue their several and incommensurable goals using a variety of contextual cues.

The upshot of this for normative economics is that it the attribution of abstract preferences or interests to individuals simply makes no sense. People have a variety of desires prior to choice but only have preferences, in the sense of an ordinal ranking of alternatives, at a particular time, place, and context of choice. This means that externalities, for example, have no determinate size and may be of indeterminate sign. The example of cost-benefit analysis is used to show that this requires a non-algorithmic comparative institutional analysis in which the conclusions of positive social science are imported as premises in moral arguments.

Chapter five concludes by drawing these lessons together and arguing for a non-algorithmic approach to institutional analysis which considers multiple dependent and independent variables, multiple assumptions about the state of the world, and multiple metrics of desirability. Such an approach is extremely unlikely to inform policy in large-scale democracies, however, and I will argue that decentralizing political power to the community level will better facilitate the deliberative processes required to produce reasonable policy.

Chapter Two

Does Parchment Matter? Constitutions and Freedom

2.1. INTRODUCTION

Government ostensibly exists to prevent private predation of the weak by the strong and the few by the many. In many cases, though, government becomes the instrument of predation by either political elites or majorities. Using evil (institutionalised violence) to do good (prevent private violence) is necessarily a Faustian bargain (Ostrom 1984). Constitutionalism is essentially an attempt to mitigate the danger of this bargain by limiting the scope for government to act as a tool of predation. The extent to which constitutional controls can constrain government, though, is far from clear. Some constitutionalists seem to take government respect for constitutional rules as axiomatic; some non-constitutionalists see government power as fundamentally unbounded.

The purpose of this chapter is to explore the degree to which constitutions can limit the power of government. Are constitutions mere parchment barriers which can be broken at the whim of those with political power, or do they act as genuine constraint? If the latter, what is the mechanism of this constraint, and under what conditions will constitutions prove effective?

My point of departure in answering these questions will be the work of scholars within the public choice school of political economy. The sub-discipline of constitutional political economy has provided the most rigorous defence of the desirability of constitutional limits on the power of government. The foundational work is James M. Buchanan and Gordon Tullock's (1962) *The Calculus of Consent*, which formally models democratic decision-making and shows that self-interest in unbridled majoritarian government will lead to exploitation of minorities by majorities. Since each person can expect to be in the minority on some issues, self-interest will compel people to prefer limitations on the power of government – to promise not to use the force of government to exploit others, in exchange for a similar promise from everyone else.

This line of argument has been followed by other political economists, notably Buchanan and his frequent co-author Geoffrey Brennan. The central theme of this new field of constitutional political economy has been the rationality of individuals instituting governments among themselves but also limiting the power of those governments through substantive and procedural constitutional rules. Like Ulysses binding himself to the mast, citizens will rationally choose to limit their own future power, knowing that they cannot be trusted to act in ways which serve their own interests. Constitutional constraints provide the "rules of the game" within which government operates. By fostering agreement on what political behaviour is legitimate, constitutions reduce the danger of faction and tyranny in the political sphere and mitigate the social dilemma which threatens to destroy peace and order.

Constitutional political economy views government through a contractarian lens: governments are instituted among men in order to serve their interests. While the social contract in undoubtedly fictional in historical terms, the contractarian approach may justify political arrangements by showing them to be in the interest of individuals. Contractualist theory, then, is normative rather than descriptive: the goal of institutional analysis is to show what agreements people *would* make in a hypothetical constitutional convention, rather then what agreements they have in fact made. While constractarian theory is not without its problems, for the purposes of this chapter I will take this approach.

2.2. THE LOGIC OF CONSTITUTIONALISM

2.2.1. The Escape from Hobbesian Anarchy

The standard assumption in political economy is that the state of nature is characterised by chaos.[2] Each individual in the state of nature would prefer to live in world where everyone respects each other's basic liberties and chooses to engage in production rather than predation, but collective action problems prevent this happy state of affairs from coming about. Each individual has an incentive to

[2] While there is a large literature (see Powell & Stringham 2009 for an overview) arguing that orderly anarchy is possible and preferable to the situation in which one institution is granted a monopoly on the legitimate use of force, I will take the standard assumption of Hobbesian anarchy as given for the purpose of this chapter.

take from others rather than produce themselves. While everyone would gladly give up their ability to plunder in exchange for the equal relinquishment of others, such an agreement would be unenforceable without an external authority to arbitrate and enforce. This social dilemma (Tullock 1974) condemns those in the state of nature to a war of all against all. For Hobbes, people escape the state of nature by ceding their liberties to a powerful sovereign. This Leviathan is unlikely to respect rights but will produce social order and allow people to move from predation to production, even if a good deal of their product is plundered by Leviathan.

2.2.2. The Social Dilemma of Unrestrained Government

Of course, government is not some unitary social actor but is itself a spontaneous order emergent from the interaction of various political actors constrained by their environment and each other (Wagner 1988, 1993a, 1993b). While some totalitarian governments approximate the Leviathan model of a small elite preying on the population at large, most predation in industrial democracies involves a large alliance of citizens using the machinery of the state to pursue its interests at the expense of some other group.

Government can facilitate predation in number of ways. Concentrated and well-organised interest groups can seek favours from policymakers which harm society at large (Tullock 1967; Olson 1971; Krueger 1974); majorities can extract resources from minorities (Buchanan & Tullock 1962) or force them to behave in accordance with their version of morality (Gusfield 1963; Edelman 1964, 1971). James Madison was much more concerned with the danger of predation through factions using the machinery of the state than with a single tyrant taking control of government. In a letter to Thomas Jefferson, he states quite clearly that "the invasion of private rights is *cheifly* to be apprehended, not from acts of Government contrary to the sense of its constituents, but from acts in which the Government is the mere instrument of the major number of the constituents" (Madison 1788).

Rather than one actor dominating others – creating order at the expense of justice – government is characterised by competing factions using political means as a substitute for private violence. As Madison points out in *Federalist* 51, a government in which "the stronger faction can readily unite

and oppress the weaker, anarchy may as truly be said to reign as in a state of nature." While unrestrained government may remove much of the physical violence of the war of all against all, it does not remove the underlying predation and conflict. Participants in the government social dilemma remain trapped in a collective action problem: each would be better off if they could somehow agree to respect each others' rights, but each has an incentive to renege on any such agreement when part of the ruling coalition (Gwartney &Wagner 1988: 18).[3]

Like Hobbesian anarchy, this leads to unproductive expenditure in predation and protection against the predation of others. Tullock (1967) shows, for example, that costly, zero-sum rent-seeking dissipates some of the profits accruing to winners of the competition for state-enforced monopolies. While the potential plunder available to a firm which can convince the state to grant it special favours is large, the socially unproductive courtship efforts by multiple firms removes some of the *ex ante* benefits potential predators receive. When all is said and done, the costs of corporatism to the public at large are not fully offset by benefits to well-connected firms. Even those frequently in bed with government would sometimes prefer a government which denied them these opportunities.[4]

Absent a stable and homogenous group which can expect to retain power, everyone would prefer a binding agreement not to violate the rights of others and we remain in an n-person prisoner's dilemma. The only difference between Hobbesian anarchy and Hobbesian government is that rent-seeking replaces the direct use of force: lawyers and lobbyists replace guns (Wagner & Gwartney 1988: 36).

2.2.3. Constitution as Escape from the Hobbesian State

At the heart of constitutionalism is the notion that the state is not above the law. The government is not the source of law or the rights of citizens but is subordinate to the social contract by which it is established (McIlwain 1947). This idea was in the mind of the authors of the US Declaration of

[3] Alfred Cuzán (1979) makes a similar but distinct point when arguing that we can never really get out of anarchy. He sees the state as subjecting *relations among citizens* to the control of a third party, but relations *within government* remain anarchic (i.e. bilateral, without external control).
[4] Though the empirical evidence suggests that the degree of rent dissipation is surprisingly small. See Section 1 of Tullock (1989).

Independence, who found it self-evident that "Governments are instituted among Men, deriving their just powers from the consent of the governed, — That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it." The role of government, according to constitutional political economists, is to act as an external arbitrator enforcing the rights delimited in the social compact but having nothing to say on the merit of those rights. Just as a jury is meant to decide matters of fact and remain silent on the justice of the laws in question, so government should mechanically protect already-defined rights and liberties. The liberal constitutional state is purely procedural (Buchanan 1975: Ch. 6).

Government, of course, does not naturally stand outside of society as a neutral third party. At the core of constitutional political economy is the idea that unbridled government power is apt to produce tyranny. This can be a tyranny of either the majority (Buchanan & Tullock 1962: Ch. 8.) or political elites (Brennan & Buchanan 2000). To realise the ideal of state as referee, constitutional limits are required. This leads to the distinction between the constitutional and post-constitutional stages of collective choice.

When making any collective choice, conflicting interests will lead to disagreement. As every particular political decision benefits some at the expense of others, post-constitutional politics is inherently adversarial. To mitigate this conflict, the rules of politics must be decided separately from everyday politics. Just as unanimity over the rules of a card game is more likely before the cards are dealt, so constitutional choice must take place at a higher level of abstraction than pragmatic politics. This is similar to Rawls's (1971) suggestion that justice can be decided by people ignorant of their particular interests and preferences. Buchanan's veil is much thinner than Rawls's: individuals retain a normal level of knowledge about their station in life, but the abstractness and generality of constitutional rules provides the uncertainty required to prevent self-serving choice.

Where Rawls imagines a hypothetical veil of ignorance, Buchanan posits an actual veil of uncertainty. Constitutional rules are high-level meta-rules for deciding how lower-level concrete rules are made. There will be innumerable rules made within a set of constitutional meta-rules. As such, individuals

will not generally be aware of which constitutional rules are likely to give them an unfair advantage over others. This will lead people to promote the general good (Buchanan &Tullock 1962: 78-79):

> Essential to the analysis is the presumption that the individual is *uncertain* as to what his own precise role will be in any one of the whole chain of later collective choices that will actually have to be made. For this reason he is considered not to have a particular and distinguishable interest separate and apart from his fellows. … His own self-interest will lead him to choose rules that will maximize the utility of an individual in a series of collective decisions with his own preferences on the separate issues being more or less randomly distributed. (Buchanan & Tullock 1962: 74.)

Impartial self-interest will compel individuals behind the veil of uncertainty to favour tight restrictions on the power of majoritarian democracy. While an individual can expect to be among the plundering majority at some times, he will be among the plundered minority at others. All things considered, he will prefer a welfare-maximising constitution. This will protect the minority from the tyranny of the majority and produce something resembling the classical liberal ideal of a minimal state. Since post-constitutional politics lacks invisible hand mechanisms aligning individual and collective interests, unconstrained behaviour at this level will lead to suboptimal results. At the constitutional level, on the other hand, the veil of uncertainty does align incentives and will tend to produce optimal rules.

2.2.4. Worst-Case Political Economy

The constitutional project is premised on the notion that politicians and other political actors cannot be trusted to promote the general interest. James Madison took this position in *Federalist* 51:

> If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. A dependence on the people is, no doubt, the primary control on the government; but experience has taught mankind the necessity of auxiliary precautions.

Indeed, Brennan and Buchanan's version of robust political economy, described in the first chapter, was formulated specifically as a way of defending their constitutional vision against charges of behavioural unrealism. Constitutional constraints, they argue, are desirable insofar as they protect against the worst excesses of government. Even if we have no reason to think that politicians will use

the power of the state to pursue their selfish ends or that the majority will oppress minorities, it is prudent to choose constitutional rules on the basis that this is the case. Protecting against tyranny is, after all, *the entire point* of the constitutional exercise.

2.2.5. Structural versus Substantive Constitutionalism

Buchanan admits that his argument depends on the ability of constitutions to constrain the power of government (Buchanan 2001: 47-49). To consider whether this is so, it is necessary to consider different types of constitutional rules separately. The most relevant distinction is between structural and substantive constraints. The former seek to distribute political power in such a way as to limit the power of faction; such as federalism, the separation of powers, bicameral legislatures, and electoral procedures. Madison was clearly interested in structural constitutionalism when, in *Federalist* 51, he argued that "[a]mbition must be made to counteract ambition."[5] Substantive constitutionalism, on the other hand, seeks to limit the legitimate actions of government by formal decree, explicitly defining a public and private sphere and protecting the latter from interference. The American *Bill of Rights* is the most celebrated example of substantive constitutionalism. The fact that Madison and many other framers were ambivalent toward the prospect of the *Bill of Rights*, which was added as afterthought due to pressure from others, demonstrates their commitment to structural constitutionalism.

Structural constraints are generally self-enforcing. Rather than limiting the power of government *per se*, they create a different kind of government less apt to violate individual rights. Structural rules, of course, are enacted in constitutions by mere words: ultimately, everything is parchment. Could not members of the White House, Senate, House of Representatives, and various state governments simply decide that they no longer wished to be restrained by the separation of powers and form a totalitarian regime? If it is power that ultimately matters, could not the executive branch, with its control of the military, simply ignore the decisions of the court? In the colourful but misquoted (Boller and George 1990: 53) words of Andrew Jackson: "John Marshall has made his decision; now let him enforce it!" Both of these scenarios are possible but unlikely. Most obviously, government

[5] Madison was presumably influenced by Montesquieu (1989) and Hume (1875).

must guard against being thrown out at the next election or, in more extreme circumstances, at the barrel of a gun. So long as the public views the distribution of formal powers as laid out in the constitution as legitimate and are willing to punish rulers for breaking the rules, formal power will be translated into practical power. While even structural rules can sometimes fail – one branch of government can capture, or simply ignore, another – it seems reasonable to treat them as self-enforcing and binding in most cases.

The effect of substantive constraints is less theoretically obvious. Substantive constraints also seem more important to constitutional political economy. If constitutional rules are to delimit the scope of legitimate post-constitutional actions, they will need to be more than purely structural. Structural rules alter the balance of political powers but are not capable of setting any firm limits on political action. They can never guarantee the maintenance of a private sphere: a sufficiently large majority in favour of abrogating property rights or freedom of religion, for example, will always be successful unless there is some way to sequester these freedoms away from the influence of collective choice. Only substantive constraints have the potential to do this. For these reasons, the following sections will focus primarily on substantive constraints when it asks whether the assumption of constitutional enforceability is reasonable.

2.3. BEST-CASE THINKING THROUGH THE BACK DOOR

Brennan and Buchanan's argument for taking a pessimistic view of human nature at the post-constitutional state is convincing. It is not clear, however, to what extent constitutions can actually restrain government. Even if the veil of uncertainty successfully aligns individual interest and welfare maximisation at the constitutional stage and produces optimal rules,[6] the problem of enforcement remains. Constitutional rules are ultimately only parchment barriers and must be enforced if they are to be binding.

[6] There is reason to doubt that this will be so. Parham (2010) points out that constitution-making is vulnerable to manipulation by dominant factions and well-connected interest groups in the same way as post-constitutional politics. Further, if expressive preferences dominate at the level of constitutional choice, as Brennan and Hamlin (2002) argue, the veil of uncertainty will not produce optimal rules. Crampton and Farrant (2004) further argue that a constitutional convention will fall prey to either despotism, if instrumental concerns dominate, or irrational policy, if expressive concerns dominate.

Farrant (2004) and Farrant and Paganelli (2005) argue that while Buchanan's constitutionalism professes to engage in worst-case theorising, it allows best-case thinking in through the back door by assuming constitutions are always respected and enforced. In fact, constitutional constraints are only "contingently robust." The effectiveness of a political institution depends on its enforcement:

> Buchanan argues for constitutional constraints to check the knavery of public choosers, thus implicitly abandoning the assumption of motivational symmetry at the constitutional level [and] supposing angels both write and enforce the constitutional rules of the game. (Farrant & Paganelli 2005: 74)
>
> Does constitutional political economy have something akin to a benevolent-despot assumption … at its very heart? Without such an assumption, however, it is unclear why – in terms of Levy's 'insurance' metaphor – the 'insurance' will actually pay off when "worst-case" disaster threatens to rear its ugly head. (Farrant 2004: 449)

While Buchanan and other constitutional political economists vigilantly engage in worst-case theorising at the level of everyday politics, they are naïve best-case thinkers at the constitutional level. Something must enforce constitutional rules. Whether this is the government proper or some quasi-independent agency, it is unreasonable to assume its benevolence. Farrant admits that best-case theorising can be useful in some situations but insists that "political economists ought to readily admit to themselves that best-case thinking is perhaps inescapable within their models" (Farrant & Paganelli 2005: 82).

Brennan and Buchanan, though, do not suggest that worst-case thinking is the only appropriate view to take when conducting normative political economy. The argument for robust political economy rests on the harm caused by undesirable deviations from the best empirical assumptions relative to the benefit caused by desirable deviations, combined with the empirical likelihood of negative deviations. For worst-case thinking to be appropriate at the constitutional level of analysis, then, two conditions must be met: the harm of negative deviations from assumptions must exceed the benefit of positive deviations, and the constitution must be relatively unenforceable.

The first condition seems to be met: Brennan and Buchanan's quasi-risk aversion argument seems at least as pertinent for constitutional enforceability as for the benevolence of rulers in everyday politics.

If substantive limits on government power are generally aimed at protecting the most important liberties, their circumvention is likely to be extremely harmful. The pertinence of Farrant and Paganelli's accusations of best-case thinking, then, ultimately reduce to a factual question amenable to positive theoretical and empirical analysis: are constitutions effective in protecting against tyranny? The remainder of this chapter will be an attempt to answer this question. Since the best-case thinking critique seems much more relevant to substantive constitutional rules, this is where I will focus my analysis.

2.4. THE EFFECT OF CONSTITUTIONS

2.4.1. Mere Parchment?

Substantive constitutional rules are themselves only marks on paper. Unless they are enforced or internalised by political actors, they will have no effect. James Madison clearly recognised this. In his letter to Thomas Jefferson, Madison (1788) expressed a reserved endorsement of a bill of rights but insisted that the exclusion in the original constitution was not a "material defect" and felt no pressing need, save the opinions of others, to enumerate basic rights via amendment. Madison saw enumerated rights as important mainly in monarchies or other forms of government where political and physical force is separated. Were a king to violate the bill of rights, parchment may provide a focal point upon which the majority of the community – who maintain the physical power under any system of government - may organise revolt. In a democracy such as the United Sates, however, the threat of tyranny comes largely from the majority itself: political and physical power is vested in the same faction. Madison suggests that parchment barriers are completely incapable of preventing abuses of power whenever such abuse is demanded by the public.

Thinkers such as Gordon Tullock (1987) and Anthony de Jasay (1989) have pointed out that if substantive constraints on government power are to be considered binding rules, they must be enforced. This enforcement could come from government itself, or some agency meant to stand outside and above government. In either case, we are left with an enforcement agency which is itself unconstrained. It is all very well to insist that government is not above the law, but when government

interprets and enforces the constitution, it is difficult to see how law could prevail when the political wishes of government and the legal stipulations of the constitution conflict.

Channelling Madison, de Jasay argues that if the dominant forces of society, as represented by government, desired some outcome unattainable under the existing constitution, there is nothing preventing them from simply using another constitutional rule and having their way. Without someone to guard the guardians, government power is unbounded. Constraints on government which are themselves part of the government machinery are nonsensical. Government is only limited by constitutional rules if it accepts and abides by them, and a rule which is only binding when one decides to obey it is no rule at all. Anything more substantial would require a rule "that is representative yet stands above interests, decisive yet benign, conflictual yet unanimous, square yet round" (de Jasay 1989: 299).

Tullock insists that any durable effective constitution must be self-enforcing. He sees little prospect of a self-enforcing bill of rights and says that the problem of created self-enforcing (in the long run) structural constitution has "so far evaded solution" (Tullock 1987: 318).[7] The central problem of constitutionalism is that constitutions can be ignored, interpreted in ways to circumvent restrictions, or amended. Without an arbiter external to society and above interest, the social compact enshrined in the constitution can never be a truly enforceable agreement.

2.4.2. How Are Constitutions Undermined?

Bargains struck at the constitutional stage can later be violated in a number of ways. In the most extreme case, the constitution can simply be ignored or discarded. If the preferences of legislators conflict with the constitution and neither the public nor other branches of government are willing and able to punish violation, the chances of constraint seem slim. Another possible avenue for large

[7] Laffont (2000) uses contract theory to formulate mechanisms designed to limit the principal-agent problems between the voting public and government. While this line of thinking may offer ways of ameliorating the problems of rent-seeking and other forms of bureaucratic slack, it does not address the central problem of this chapter: factions of the voting public using the machinery of the state to repress each other.

majorities determined to perform acts forbidden by the constitution is amendment. Many constitutions, of course, erect significant barriers – such as referenda, supermajorities and successive majorities – to constitutional amendment. While these barriers can be overcome when a sufficient number of people demand amendment, entrenched constitutions seem fairly resistant to change. [8]

Even if a constitution remains intact and commands the professed allegiance of political actors, however, constitutional agreements can be undermined through interpretation and manipulation. Since laws, like contracts, never provide unambiguous guidance for action, the effective constitution can change over time. Voigt (1999) suggests that constitutions are subject to "implicit change." The effective constitution emerges from the strategic interaction of different branches of government, interest groups, and the public; each of whom has different preferences over policy. Ackerman (1991) argues that there have twice – in the 1860s and 1930s respectively – been significant changes to the effective constitution of the United States without alteration of the text.

Robert Higgs (1988) similarly argues against a simple view of the constitution as existing merely as words on paper. There are, he argues, three loci of the constitution. The *de facto* constitution arises out of constitutional document itself, what the court says it is, and what the public thinks it is (Higgs 1988: 374-376). The third locus depends on the dominant ideology within society. Since this changes during times of emergency, it makes sense to think of a distinct "crisis constitution," which comes into effect even as the written document remains unchanged. In times of perceived crisis, the voting public will often demand restrictions on liberty in the name of safety. Politicians, being agents of voters subject to electoral discipline, will respond to this demand. Courts may declare policies unconstitutional, but there are strong incentives against judicial activism in times of crisis, with courts not bending to popular preferences facing the possibility of being ignored and having their legitimacy undermined. The judicial branch will therefore be reluctant to stand up to legislature in times of emergency. This, says Higgs, is exactly what we see in the historical record (Higgs 1988,: 378-379).

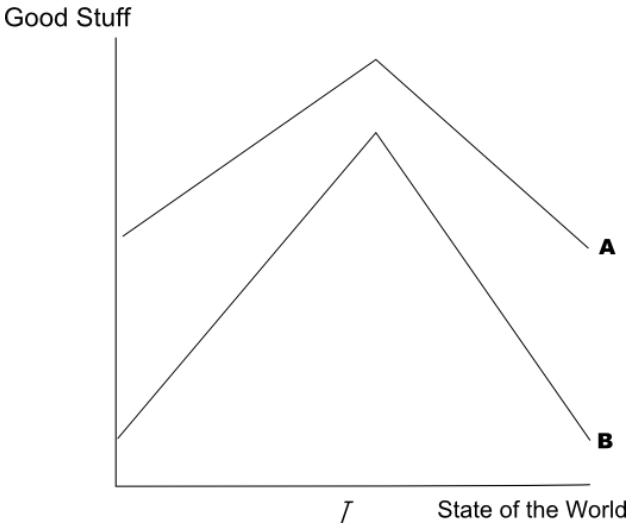
[8] For positive analyses of constitutional amendment, see Boudreaux and Pritchard (1993) and Lutz (1994).

If Higgs is correct, the constitution loses its binding force precisely at those times it is most needed. History shows us that crises of various sorts tend to lead to the expansion of government and the abrogation of liberty (Higgs 1987). This hypothesis is obviously at odds with Brennan and Buchanan's insurance metaphor of the constitution, and the empirical analysis later in this chapter will attempt to shed light on this dispute.

2.4.3. Parchment Reduces Probability of Tyranny

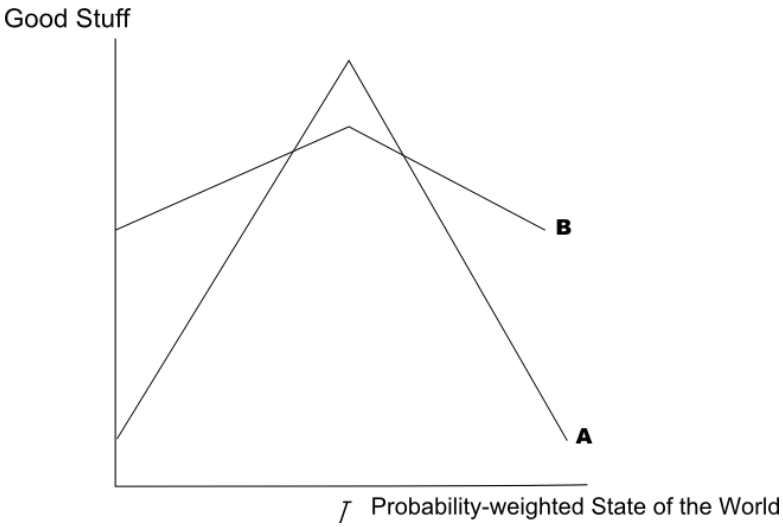
Experience tells us unequivocally that constitutional constraints can be circumvented: governments have often broken their own rules. Effective constraints, however, need not be absolute. It is possible that constitutions protect against the worst outcomes not by being the last line of defence against tyrannical interest and power but by making interest and power less tyrannical. If we wish to compare the ability of bound and unbound government to avoid disaster, it is not simply the *badness* of the worst outcome which is relevant but also the *probability* of that outcome. Levy's analogy with robust statistics suggests that the probability of a given state of the world is independent of political institutions. This is clearly not the case. This can be shown by modifying Levy's diagrammatic representation of robustness. Taking an extreme case to illustrate the point, Figure 2.1 shows institution B as completely dominated by A when using Levy's logic.

Figure 2.1: A Dominated Institution



If the horizontal axis is used to represent a state of the world weighted by how likely it is under a given political institution, however, a very different result could be observed. Now the further we are from *T*, the less likely that state of the world is to hold. Suppose that the state of the world was much more likely to remain close to ideal conditions under institution B. This would vertically flatten and horizontally stretch B relative to A. With enough of a difference in probability, something like Figure 2.2 could result. Now institution B seems more robust than institution A. Taking probability into account is surely a better measure of robustness than simple unweighted states of the world.

Figure 2.2: Dominated No More



In the very worst case, institutional variables do not matter at all. As Aristotle (*Politics*, Book 7, Part IX) puts it, "those who carry arms can always determine the fate of the constitution." Absolute knaves will ignore rules completely and rules will be irrelevant. On the minimax criterion, there is no basis for choosing between any two sets of institutions. The minimax criterion is, of course, a foolish choice rule. It is reasonable to give extra weight to particularly bad outcomes. It is not reasonable to completely ignore everything but the worst outcome. There are a number of possible mechanisms through which mere parchment could reduce the pressure for tyranny. Madison (1788), generally sceptical of parchment barriers, points to two ways in which they might protect against oppression.

First, Madison saw the constitution as having an important role in shaping public opinion, in addition to that of creating a structural separation of powers (Sheehan 1992, 2005). In his letter to Jefferson, he made this quite clear: "The political truths declared in that solemn manner acquire by degrees the character of fundamental maxims of free Government, and as they become incorporated with the national sentiment, counteract the impulses of interest and passion." If the public sees the constitution as possessing legitimate authority, its substantive provisions may influence voter preferences and therefore policy outcomes. The most obvious example of this is the second amendment to the U.S. Constitution. The constitutionally protected right to keep and bear arms has provided a powerful political argument to those opposed to gun control.

The analysis thus far has proceeded as if policymakers act as perfect agents of the majority. While this is not entirely true, the normative problems of unrestrained government exist even without corrupt politicians, and policy does seem to follow public opinion fairly closely (Page & Shapiro 1983; Althaus 2003; Caplan & Stringham 2005; Crampton 2002). The principal-agent relationship between citizens and the state, however, is never absolute. The problem of observability of contractual violation (Hölmstrom 1979), exacerbated in the political arena by rational ignorance (Downs 1957), gives politicians and bureaucrats some slack to pursue their own goals against the preferences of the voting majority.

Introducing principal-agent problems brings us to Madison's second reason to favour a bill of rights: to protect against tyrannical government not backed by the majority faction. While Madison saw the greatest risk of tyranny in majority and faction, he recognised the possibility of political elites tyrannising the population at large. Substantive rules could provide a focal point ("good ground for an appeal to the sense of the community") around which citizens could focus their resistance. A substantive prohibition would provide a clear test of whether rulers are breaking the rules and thus make punishment by the public – with either ballots or bullets – more likely.[9]

Even if government does not become overly tyrannical, substantive constitutional rules could provide a clear code of conduct meant to prevent particularly harmful forms of agent slack. In the U.S. constitution, the Fifth Amendment's prohibition of takings without just compensation, as well as the general welfare clause of Article 1, Section 8, can be seen as rules aimed at making self-interested politicians more accountable.

If we accept that most tyranny in functional democracies is actively demanded by the public, the degree to which parchment protects freedom by mitigating the principal-agent problem will be limited in those countries. Where principal-agent problems are more serious, we might expect parchment to be more effective. Of course, the slack in the relationship may also enable rulers in corrupt regimes to better hide their misdeeds. This will be true of unpopular policies whether or not they are prohibited by the constitution, however, and so parchment should have greater marginal effect in countries with high corruption. Though Brennan and Buchanan do not have this mechanism in mind, it is consistent with their view of constitutions as protecting against the very worst outcomes. Like insurance, parchment barriers become effective only when conditions are bad.

[9] Weingast (2005) models a constitution as a coordination device used by citizens to organise resistance to tyrannical government.

2.4.4. Parchment Backed by Structure

Another relevant consideration is the interaction of structural and substantive rules. The most obvious example of this is judicial review. We can think about the constitutional effect of judicial review in two ways: as a purely structural constraint on majoritarian democracy, or as an enforcement agency for substantive constitutional clauses. That is, as an institution primarily either *political* or *legal* in nature.

By creating another veto point, judicial review creates a structural constraint on policy-making. In this sense, judicial review is primarily a political, rather than legal, institution (Dahl 1957). In the United States and most other countries, the judges of the supreme or constitutional court are indirectly elected through democratic decision-making. If an elected official appoints judges for life (or any term exceeding that of the elected official himself), we can think of the Court as another democratic institution in which representatives are chosen through a mechanism different to that of the other policymaking institutions of the legislature and executive. A judiciary with the power to strike down legislation it deems unconstitutional, like a bicameral legislature, adds another veto point and thereby increases the size of the minimum winning coalition. This potentially protects minority interests but does so without reference to the substantive clauses of the constitution. Along these lines, Landes and Posner (1975) argue that an independent judiciary with life tenure allows interest-group deals struck through legislatures to survive after the legislature has been replaced. The Supreme Court, then, is an agent of current as well as past legislatures. This has the potential to protect the interests of those formerly within the ruling coalition but now outside it; thus providing a check on majoritarian power.

Of course, the court is only granted power to strike down laws inconsistent with the constitution and so the veto point is, at least in formal terms, much weaker than that provided by a president or second house of legislature. This leads to the second way to think about judicial review: as a *legal* institution designed to enforce the substantive clauses of the constitution. In the popular imagination at least, an independent judiciary is capable of acting as an impartial enforcer of constitutional rules. This does not necessarily cause the problems of guarding the guardians of the guardians, since power is not

necessarily hierarchical. Contra de Jasay, the extra-governmental agency designed to bind government is not itself unbounded, since the two parties could potentially have the power to guard each other (Hume 1875).

The problem with this view is the indeterminacy of substantive constitutional provisions. Law must be interpreted and will normally permit a variety of readings which can be chosen to suit the Court's ideological or material preferences. If parchment were enough to ensure that the Court will respect certain rights, it is unclear why the legislature cannot be similarly constrained, thus obviating the need for judicial review. Being sworn to protect the constitution may place *some* limits on the policymaking power of the court, but the possibility of liberal interpretation precludes a purely legal institution which stands above the political interests and faction against which it was created to protect.

Buchanan (1974, 1988) seems to see judicial review entirely in the second sense, as a legal institution acting as an impartial third party. The court in its role as umpire takes a dispassionate "truth-judgement" approach to the question. It does not represent interests or attempt to make compromises between competing factions but makes an almost mechanical judgement as to whether a piece of legislation violates the constitution. Even if the judiciary has the intent to act as a dispassionate guardian of substantive constitutional protections, however, it may lack the ability. Madison warned in *Federalist* 48 of the potential for the legislative branch to dominate the other two. The legislature may be able to ignore the decisions of the Court. This seems especially likely in times of crisis and when a majority of the population are against strict enforcement of the constitution. If this is the case, the court may simply go along with the legislature for fear of losing legitimacy (Higgs 1988: 378-379). The judicial branch may then become an agent of the legislature, *increasing* its power by providing legitimacy through an ostensible, but ineffective, separation of powers.

There are theoretical arguments running in many directions and there seems to be little basis for reaching conclusions on whether judicial review is an effective political or legal check on the power of government. We will need to turn to the data in order to answer these questions. If judicial review

influences policy regardless of substantive constitutional rules, we can be confident that it mainly operates as a purely structural constraint on government: a *political* institution. If, on the other hand, parchment and judicial review are *both* required to protect individual liberties, we have evidence that judicial review is a *legal* institution enforcing the constitution. A third possibility is that judicial review has no effect at all.

2.5. EMPIRICAL QUESTIONS

In order to investigate empirically whether constitutional rules constrain policy choice and thereby have an effect on freedom, we need to find a constitutional rule which is neither too common nor uncommon and for which there exists a reliable measure of the outcome. Most constitutional rules, though, are either very common or very uncommon. Freedom of expression, assembly, and association, for example, are guaranteed in most constitutions containing a bill of rights. The right to bear arms, on the other hand, is very uncommon. Without a significant number of cases taking each value in our variable of interest, the explanatory power of the model is reduced.[10] Additionally, we might run into problems measuring the policy outcomes we are interested in. Governments can restrict freedom in any number of ways, and any attempt to estimate the total level of freedom in a particular domain is bound to be a major undertaking. Fortunately, indices of freedom in various domains already exist. This does, though, restrict the types of constitutional provision we can choose to investigate.

Two types of freedom which meet these two conditions fairly well are economic freedom and freedom of the press. The right to conduct a business, for example, is guaranteed by around 35 percent of the constitutions studied by the Comparative Constitutions Project, and economic freedom is measured annually by both the Fraser Institute and the Heritage Foundation.[11] Around 60 percent of constitutions guarantee press freedom, and around 35 percent prohibit censorship. Further, Reporters without Borders and Freedom House both produce indices of press freedom.[12] Since guarantees of

[10] Reports on various constitutional rights are available at http://www.constitutionmaking.org/reports.html
[11] See http://www.freetheworld.com/ and http://www.heritage.org/Index/
[12] See http://www.rsf.org/ and http://www.freedomhouse.org/template.cfm?page=16

property rights and the freedom to do business are particularly common in post-soviet states, I will investigate the effect of constitutional guarantees of press freedom and prohibition of censorship on freedom of the press as it is experienced by journalists.

2.5.1. Structural Rules

The theoretical predictions made by public choice theorists regarding the effect of structural rules such as electoral system and separation of powers on policy choice and the level of freedom enjoyed by citizens are fairly straightforward.[13] The central prediction of relevance here is that systems of government with more effective veto points will require a larger coalition to enact policy and will therefore act as a brake on the tyranny of the majority. More veto points, however, will also lead to higher government spending as broader sections of the population require placation through fiscal policy.[14] In Lijphart's (1999) terms, majoritarian democracies will be more likely to result in repression of minorities by majorities. These predictions are supported by a small, but convincing, number of empirical studies. The essays in Haggard and McCubbins (2001) use a case study approach to show that institutional factors such as presidential power, bicameralism, federalism, and electoral rules have an influence on policy choice. De Vanssay and Spindler (1994), Spindler and de Vanssay (2002), and de Vanssay et al (2005) look at the relationship between structural constitutional factors and economic freedom, generally finding that more veto points increase freedom. Persson and Tabellini (2004) find that presidential and majoritarian systems lead to smaller government.

Given the existence of this literature, the effect of structural rules will be investigated only cursorily here. A number of hypotheses suggest themselves:

1. Countries with proportional electoral systems will restrict press freedom less than those with majoritarian systems.

[13] See Mueller (2003) for a detailed overview of the literature.
[14] From a classical liberal perspective, the comparison of majoritarian and proportional electoral systems is interesting in terms of robustness. If we consider bigger government bad, majoritarian systems will be preferable under best case assumptions when minority rights are not under threat. In crisis times, though, the higher spending may be an acceptable tradeoff for a lower risk of majority oppression.

2. Bicameral legislatures will restrict press freedom less than unicameral legislatures.
3. Federal states will restrict press freedom less than unitary systems.
4. Presidential systems will restrict press freedom less than parliamentary systems.
5. Systems with an independent and powerful judiciary will restrict press freedom less than those without.

2.5.2. Does Parchment Matter?

Despite much theoretical discussion of whether parchment barriers can constrain government behaviour, the question has been empirically neglected.

Boli-Bennett (1976), Pritchard (1986), and Blasi and Cingranelli (1996) each conduct bivariate analyses of the relationship between constitutional protections and respect for human rights. The results of these studies were mixed, and their failure to include other independent variables severely limits their value.

Davenport (1996) studies 39 countries from 1948 to 1982, using a pooled cross-sectional time-series design. His metric of "negative sanctions" placed on media, political parties, and individual citizens is negatively affected (that is, political repression decreases) by constitutional provisions for freedom of the press and states of emergency. Interactions between these constitutional provisions and political conflict suggest that these provisions protect against political repression more strongly in times of conflict.

Using and OLS pooled cross-sectional design over three years for all fifty U.S. states, Endersby and Towle (1997) find that controls on spending written into state constitutions are ineffective or counterproductive.

Cross (1999) shows that institutional factors such as federalism, separation of powers and, most strongly, judicial independence predict the respect a government shows for human rights but found no

relationship between explicit constitutional provisions and state human rights behaviour (though the latter analysis was restricted to only 34 countries).

Keith (2002) and Keith et al (2009) study the effect of various constitutional guarantees on government respect for the right to personal integrity (killings, political imprisonment, torture, disappearances, etc). Keith et al (2009) use pooled cross-sectional time-series data for 154-178 countries – depending on the year – to show that constitutional provisions to fair and public trials significantly decrease the level of state terror.

While investigating the effect of structural constitutional rules, Spindler and De Vanssay (2002) found that the constitutional guarantee of freedom of religion was associated with greater *economic* freedom. They suggest this relationship is mediated by the role of religious pluralism in maintaining effective political pluralism.

While these studies are important contributions and considered as a whole seem to support the hypothesis that parchment matters, none has looked specifically at whether constitutional provisions have an effect on the particular state behaviour they are designed to limit. Apart from Davenport's discovery of an interaction between conflict and constitutional protection, nor have they looked closely at *when* parchment matters.

A number of questions remain to be answered, suggesting the following hypotheses:

1. Constitutional guarantees of freedom of the press increase press freedom.

2. Constitutional prohibitions of censorship increase press freedom.

3. Constitutional provisions (whether press freedom or censorship) are effective mainly when press freedom would otherwise be restricted (i.e. Buchanan's insurance metaphor is correct).

4. Constitutional provisions become ineffective in times of crisis (i.e. Higgs's argument that constitutions are ineffective in times of crisis is correct).

2.5.3. Judicial Review

As discussed above, judicial review could protect freedom in a number of ways. As Alexander Hamilton points out in *Federalist* 78, the judiciary "has no influence over either the sword or the purse" and could potentially be completely ignored by other branches of government. Effective judicial review requires first that political actors see the court's authority as legitimate and binding; and second, that the court is committed to enforcing the constitution. Constitutional protections are designed as countermajoritarian constraints, and an effective guardian requires a countermajoritarian outlook.

Marshall (1989) finds that three fifths of United States Supreme Court's decisions are majoritarian, and half of its judicial activism (i.e. the striking down of legislation) is majoritarian. Its decisions are especially majoritarian in times of crisis (Marshall 1989: Ch. 4), and agreement with majority opinion increases the stability of decisions (Marshall 1989: Ch. 7). This suggests that the Supreme Court is no less majoritarian than other government policymakers such as houses of legislature and the president. Mishler and Sheehan (1993) find that decisions of the Supreme Court between 1956 and 1980 are responsive to changes in public opinion and the preferences of congress and the president. Between 1981 and 1989, however, they find no such relationship. They explain this change by pointing to a string of conservative appointments.

If the general finding that the Court is responsive to public opinion is correct and can be generalised outside the United States, an independent judiciary with the power to review the constitutionality of legislation, then, may be best seen as analogous to another house of the legislature. By adding a veto point elected under a different set of rules than others, judicial review may protect individual freedom even if the court has no respect for the constitution.

This suggests three possible empirical findings:

1. Judicial review does not protect press freedom.

2. Judicial review protects press freedom regardless of the constitutional provisions for press freedom and censorship (i.e. judicial review works as a purely structural constraint by adding an extra veto point).

3. Judicial review protects press freedom only when constitution guarantees press freedom or prohibits censorship (i.e. the court acts as guardian of the constitution).

2.5.4. Methodology

To measure the effect of constitutional prohibitions of censorship and guarantees of press freedom on the level of actual press freedom at the country level, I used an ordinary least squares (OLS) regression based on a simple general-to-specific modelling procedure (Campos et al 2005).[15]

As a dependent variable, I chose the 2008 Reporters without Borders index of press freedom.[16] This attempts to measure "the degree of freedom that journalists and news organisations enjoy in each country, and the efforts made by the authorities to respect and ensure respect for this freedom."[17] The index uses a questionnaire[18] which takes into account the murder, imprisonment, attacks, and threats on journalists; the level of censorship, confiscation, search, and harassment to which news organisations are subjected; journalistic self-censorship; the level of state monopolisation or regulation of news media; and legal penalties for press offences. Each country is given a score on a 0-100 scale, with 0 being most free.

The independent variables of primary interest are constitutional guarantees of freedom of the press and constitutional prohibition of censorship. I conducted a content analysis of the constitutions of 135 countries (all of those for which important data such as RSF index, World Bank governance

[15] To deal with heteroscedasticity, I used Stata's robust regression procedure. Multicollinearity is bound to be a problem whenever we are dealing with measures of good governance, which are highly correlated. As the results of the VIF test show, this study is no exception. Multicollinearity, though, inflates variance without inducing bias and thus merely attenuates significance levels. The variables of the model were selected through a general-to-specific reduction, in which variables are dropped sequentially until only those with a t-statistic greater than 1 remain; dropping further variables risks trading precision against specification bias. Following Kennedy's (2003) advice, I will accept the inflation in variance rather than risk inducing bias.

[16] http://www.rsf.org/en-classement794-2008.html

[17] http://arabia.reporters-sans-frontieres.org/article.php3?id_article=29013

[18] http://arabia.reporters-sans-frontieres.org/article.php3?id_article=29011

indicators, and Freedom House freedom index were available, excluding cases with no recognised government). Information was taken primarily from online versions of national constitutions. Constitutional guarantee of press freedom was coded as 2 if the constitution provided for unqualified protection of press freedom, or qualified only with reference to defamation; as 1 if freedom of the press was guaranteed but qualified; and as 0 if press freedom is not guaranteed. Constitutional prohibition of censorship was coded as 2 if censorship was prohibited without qualification; as 1 if prohibition was qualified; and as 0 if not prohibited.

Also of interest are structural constitutional variables constitutional rigidity;[19] strength of judicial review;[20] judicial independence;[21] presidential system;[22] bicameral legislature;[23] majoritarian electoral rule for lower house;[24] federal system;[25] and dictatorship.[26] Other independent variables in the general model were GDP per capita;[27] Freedom House Freedom of the World Index subscores;[28] government respect for religious freedom and physical integrity rights;[29] World Bank Governance Indicators;[30] The Economist Intelligence Units Democracy Index electoral process subscore;[31] region;[32] absolute latitude; legal origins;[33] ethnic, linguistic, and religious fractionalisation;[34] and age of constitution. All variables are described in Appendix 1.

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[19] Using the methodology of La Porta et al (2004), expanded using information from Maddex (2008) as well as constitutional documents.
[20] Using the methodology of La Porta et al (2004), expanded using information from Maddex (2008) as well as constitutional documents.
[21] Cingranelli & Richards (2008).
[22] Johnson &Wallack (2007).
[23] Johnson &Wallack (2007).
[24] Based on information from the Institute for Democracy and Electoral Assistance. See http://www.idea.int/esd/world.cfm
[25] Based on information from Maddex (2008) and the CIA World Factbook.
[26] Based on information from Maddex (2008) and the CIA World Factbook.
[27] CIA world factbook. PPP in 2008 US$, 2008 estimate. https://www.cia.gov/library/publications/the-world-factbook/fields/2004.html
[28] Electoral process, political pluralism and participation, associational and organisational rights, rule of law, and personal autonomy and individual rights. http://www.freedomhouse.org/template.cfm?page=363&year=2008
[29] Cingranelli & Richards (2008).
[30] Political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. http://info.worldbank.org/governance/wgi/sc_country.asp
[31] http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf
[32] Based on UN classification.
[33] La Porta et al (2008).
[34] Alesinaet al (2003).

After removing the least significant of sets of independent variables measuring roughly the same thing (such as the World Bank and Freedom House values for the Rule of Law), the most general model without interactions contained 36 independent variables. Added to this model were 26 interaction variables – (judicial review multiplied by judicial independence to give a measure of effective judicial review; and each of the constitutional variables multiplied by de jure judicial review, effective judicial review, constitutional rigidity, rule of law, government effectiveness, regulatory quality, control of corruption, degree of electoral democracy, personal autonomy, religious freedom, physical integrity rights, freedom of association, and dictatorship) – giving a total of 62 independent variables. The least significant variables were removed until only those with a t-stat of one or greater, or those included in an interaction with a t-stat of one or greater, remained. This left a model which tested 129 countries with 42 independent variables, and with an r^2 of 0.9223. As a robustness check, I also ran this reduced set of variables as an ordered logistic regression, with three different divisions of the dependent variable (broken into 10 and 20 categories, and rounded to the nearest even number).

2.6. RESULTS

Table 2.1 presents the results of each of these models for selected variables (full regression table in appendix).

Comparing the results of the OLS and ordered logistic regressions, it seems that only the ten-category logistic regression closely matches results the results of the OLS. This suggests that the OLS model is capable of explaining broad changes in press freedom but not finer movements. With that in mind, the remainder of this section will interpret the most interesting results.

2.6.1. Does Parchment Matter?

The results suggest that constitutional prohibition of censorship does protect actual press freedom. Countries with an unqualified prohibition of censorship score 31 points lower on the index of press freedom (i.e. the press is more free). This is just over one and one-third standard deviations. Constitutional guarantee of freedom of the press has the expected sign, but the result is not significant.

Press freedom provisions do increase press freedom in interaction with control of corruption (that is, the provisions matter when corruption is low), but the effect is relatively small. A one standard

Table 2.1: Selected Regression Results

	rsfindex	**rsf_10**	**rsf_20**	**rsf_round2**
Constitution prohibits censorship	-15.5285 (0.001)***	-5.387236 (0.007)***	-1.780159 (0.185)	-1.359787 (0.325)
Constitution guarantees press freedom	-6.83121 (0.356)	1.846098 (0.586)	0.8447779 (0.735)	-1.826864 (0.453)
(Constitution prohibits censorship)* (Effective judicial review)	-2.62703 (0.008)***	-1.088758 (0.008)***	-0.7129651 (0.005)***	-0.5319672 (0.045)
(Constitution guarantees press freedom)* (Effective judicial review)	-1.59005 (0.140)	-0.8329569 (0.186)	-0.2834118 (0.403)	-0.2081564 (0.572)
(Constitution prohibits censorship)* (Effective government [World Bank])	-5.28417 (0.009)***	-1.231046 (0.240)	-1.556122 (0.034)**	-1.406685 (0.051)*
(Constitution prohibits censorship)* (Regulatory quality [World Bank])	9.57178 (0.000)***	2.5141 (0.002)***	1.946914 (0.015)**	1.877308 (0.042)**
(Constitution guarantees press freedom)* (Control of corruption [World Bank])	-4.04274 (0.003)***	-2.485171 (0.000)***	-1.702165 (0.000)***	-0.9700899 (0.037)**
(Constitution guarantees press freedom)*(Freedom of association [Freedom House])	2.19318 (0.000)***	0.8324951 (0.000)***	0.6029516 (0.000)***	0.5264636 (0.001)***

n=129
p values in parentheses
All variables and interaction terms are described in appendices 1 and 2.
rsfindex = additive robust OLS regression; R2=0.9223; P>F=0.000; Mean VIF=23.68
rsf_10 = 10 category robust ordered logit; Pseudo R2=0.6256; P>Chi2=0.000;
rsf_20 = 20 category robust ordered logit; Pseudo R2=0.5165; P>Chi2=0.000;
rsf_round2 = rounded robust ordered logit ; Pseudo R2=0.4057; P>Chi2=0.000;
* significant at 10%; ** significant at 5%; *** significant at 1%

deviation increase in the interaction term decreases the press freedom index by slightly less than eight points, around one-third of a standard deviation.

We cannot be certain that constitutional protections have a causal effect on state repression, since countries with a general commitment to freedom of the press may be more likely to prohibit censorship in their constitutions. It would be surprising, though, if countries with a commitment to press freedom were more likely to prohibit censorship but not provide for general freedom of the press. A causal link does seem like the best explanation for these results. If we accept a causal relationship between parchment and freedom of the press, the results suggest that constitutional

provisions are more effective when they are specific and thus contain less scope for governments to circumvent the spirit of the constitution.

2.6.2. When Does Parchment Matter?

Consistent with Buchanan's view of constitutions as insurance, and contra Higgs, prohibition of censorship seems to protect press freedom at precisely those times when it might otherwise be restricted. The interaction of prohibition of censorship and the World Bank's measure of regulatory quality has a strongly harmful effect on press freedom. Regulatory quality, as measured by the World Bank, seems to be a fairly good proxy for economic liberalism. It includes the absence of trade restrictions and other barriers to business formation and operation. This result means that the constitutional prohibition of censorship becomes more effective as regulatory quality decreases. For those countries with regulatory quality less than zero,[35] moving from no prohibition to full decreases the press freedom index score by almost 70 points – or 2.97 standard deviations. This result is significant at the ten percent level of confidence, but, due to greater variance in press freedom for countries with lower regulatory quality, we should not take the magnitude of the relationship too literally. In countries with regulatory quality greater than one, in contrast, prohibition of censorship seems to be *harmful* to press freedom. This result, however, is small and not statistically significant. The interaction between constitutional guarantees of press freedom and Freedom House's measure of freedom of association is also positive. This means that what little (and statistically insignificant overall) effect press freedom provisions have on press freedom outcomes is concentrated in countries with low freedom of association. This suggests that constitutional provisions are effective mainly in otherwise illiberal countries and in fact seems to be positively harmful in liberal countries (though these results are not significant due to a small sample size and large error terms).

Prohibition of censorship seems to be effective in protecting press freedom when *effective* judicial review (that is, de jure judicial review multiplied by independence of the judiciary) is high. Interestingly prohibition of censorship combined with *de jure* judicial review seems to hurt press

[35] World Bank Governance indicators have a mean of 0 and standard deviation of 1.

freedom. This is surprising but could be due to de jure judicial review lending legitimacy to government actions without providing an effective check on those actions. The unexpected results discussed below, however, should make any conclusions drawn from the judicial review variables tentative.

2.6.3. The Effect of Structural Rules

The results also shed light on what types of structural factors act to protect freedom. Majoritarian electoral systems such as first-past-the-post are correlated with less press freedom. This is intuitive from a public choice perspective: more proportional systems increase the size of the minimum winning coalition and thereby mitigate the tyranny of the majority (Buchanan & Tullock 1962). Presidential systems are more likely to restrict press freedom than parliamentary systems. While public choice analysis would suggest that separation of the executive and legislative functions of government would decrease the potential for tyranny, many actual presidents have wide-ranging powers and are in practice unconstrained by the legislative branch. For similar reasons, we should also expect bicameralism to increase press freedom. Surprisingly, it does not show a significant effect and has the wrong sign. De jure judicial review seems to improve press freedom independently of the constitutional variables, while effective judicial review seems to deteriorate it. This is a counterintuitive result and I have no plausible explanation.

2.6.4. Other Results

As we might expect, government respect for the physical integrity of citizens and their freedom of association is positively correlated with press freedom: countries liberal in one sphere will also be liberal in others. Freedom House's measure of personal autonomy and individual rights, however, is significantly *negatively* correlated with press freedom. This measure, though, includes private actions by individuals and firms such as discrimination and the provision of unsafe working conditions. A possible interpretation of this result is that government intervention to prevent private discrimination and unsafe working conditions increases the score of those countries which are also likely to restrict press freedom.

Interestingly, the World Bank measures of government effectiveness and control of corruption seem to decrease press freedom. A possible interpretation is that once we control for various measures of liberalism and good governance outcomes, the efficiency of government allows it to more effectively restrict freedom (Crampton and Farrant 2006, 2008).

Religious fractionalisation seems to increase press freedom. This might suggest that the liberalism coming from interaction among those of different worldviews dominates the illiberalism caused by conflict between different religious groups.

2.7. CONCLUSION

The empirical results above suggest that parchment barriers, if specific, can have a positive impact on freedom. De Jasay's rejection of constitutional constraints as mere parchment with little or no effect on government behaviour is unjustified.

The fact that constitutional guarantees of freedom of the press are not themselves effective suggests that rights need to be clearly and unambiguously specified. A clause stating that "there shall be no censorship" leaves less room for interpretation and distortion than "freedom of the press is guaranteed." This, of course, requires the study of different constitutional variables before it can be generalised.

Whereas Davenport (1996) finds interactions between conflict and constitutional protection, by including more independent variables I find that constitutional protections interact strongly with various measures which tap into the liberalism of government policy. This suggests that constitutional protections are most effective when policy is otherwise illiberal: parchment matters most precisely when it is needed. While, again, more research is required to ascertain whether this is true of constitutional protections in general, this lends support to Buchanan's view of constitutions as protecting against the worst outcomes and is in conflict with Higgs's view of constitutions as becoming ineffective in times of crisis. The insurance metaphor for constitutions is appropriate to this extent.

On the other hand, constitutional guarantees never provide absolute protection against state repression but reduce the level of repression which would otherwise occur. Governments frequently go against the spirit and the word of their constitutions, and there is never any truly independent and impartial enforcer of constitutional constraints. Farrant and Paganelli are correct that Buchanan is not a consistent worse-case thinker and that the robustness of constitutional rules is contingent upon their enforcement or perceived force among rulers. This makes the standard view of constitutions as the "rules of the game" of post-constitutional politics problematic.

While choice at the constitutional level does alter the conditions under which the post-constitutional game is played, it can never create an absolutely binding set of rules enforced by an external arbiter. Compare the situation of individuals wishing to make a constitutional agreement not to engage in certain behaviour at later times to that faced by those wishing to agree on acceptable rules of conduct during a sporting event.

Imagine two boxers about to enter the ring. Each would prefer to win and, suppose, does not much care about honour or gamesmanship. The game they face is clearly one of conflict, since they cannot both have what they desire. Each also has other preferences, though, which allow for mutually advantageous agreement prior to the match. Each wishes to minimise the pain and injury he suffers at the hand of his opponent. This being so, each will likely agree to prohibit certain actions and otherwise set up the match in such a fashion as to minimise pain and injury. Each would prefer to be able to punch the other below the belt, fight bare-knuckle, or wrap their gloves in barbed wire but are eager to give up these liberties if their opponent reciprocates: the veil of uncertainty compels each of them to promote the general welfare of both at the stage of rule-choice.

The boxers are also capable of appointing a neutral referee to adjudicate the match. They can grant this referee complete power (albeit entirely deriving from convention and perceived legitimacy) to enforce the rules and punish violations with penalties or disqualification. They can also limit the power of the referee, since a referee who does not enforce the rules neutrally or decides to shoot both participants and declare himself the winner will lose legitimacy and no longer be considered the

referee. This is where the analogy with constitutional choice becomes problematic. People can make agreements at the constitutional level but can never appoint a neutral referee without any interest in the outcome of the match. Government is never external to society but merely channels the conflict inherent in human relations in different ways. Interests will always sneak in, and representation of those interests is unavoidable. The situation is like that of the two boxers who must agree on rules without a referee: they can make all the agreements they want but can later renege when it is to their advantage. Unenforced agreement may have some force, but when the payoff from violation is sufficiently large, the agreement will break down.

How, then, are they to make credible agreements? Instead of agreeing on formal rules of conduct such as "no hitting below the belt" (substantive clauses of a constitution), they will take action which actually reduces the capacity to do damage later. The latter strategy, if conducted competently, will be self-enforcing. Each contestant would prefer the other wear gloves sufficiently thick to soften the blows somewhat. Of course, each would have an incentive to remove the gloves during the fight. Realising this, the players may agree to have a representative of the other fasten their gloves in such a way as to make them impossible to remove during the match. This reduces the potential damage of the contest but does not ensure entirely good behaviour. There will still be hitting below the belt (analogous to the violation of some protected individual liberty), but the resulting damage will be lessened. This is analogous to structural constitutional constraint like the separation of powers.

While more investigation is required to ascertain the mechanism through which substantive constitutional rules affect government behaviour, the relationship is likely mediated by the preferences of political actors and the perceived costs of the prohibited action. A constitutional prohibition of censorship does not make censorship impossible, as governments have repeatedly demonstrated, but may make voters less supportive of censorship or increase the perceived political costs of censorship for government decision makers.

Unfortunately, much of the normative force of constitutional political economy depends on absolutely binding substantive restrictions on government power. Buchanan (2001: 45) states that constitutional

rules are designed to "define the relative spheres for private and governmental action." Since neither parchment nor structure is capable of building an impermeable wall between the public and private spheres, constitutionalism will fail to deliver on this promise. This reveals a problem with the insurance metaphor for constitutional constraint. Where insurance comes with an upfront cost and makes us indifferent to subsequent misfortune, constitutional prohibitions seem to reduce the cost of misfortune at any point along the spectrum past some threshold. A closer analogy than insurance would be a cyclist choosing to wear a helmet. Any accident (desire among political actors for the restriction of liberty) will lead to injury (state repression), but the helmet reduces the level of injury resulting from crashes of any given severity.

While structural rules are more self-enforcing, they are also relatively blunt instruments when compared to bills of rights. Supermajority requirements or bicameral legislatures may give extra weight to the preferences of minorities relative to unconstrained majoritarianism, but they are not capable of protecting particular spheres of private life against interference from the majority. Liberalism in general, and the classical liberalism of Buchanan in particular, is committed to avoiding what William Galston (2005) calls civic totalism: the tendency of collective choice to encroach on every aspect of life, removing the private sphere altogether. Avoiding civic totalism requires not only that government be restrained in its policymaking but that *some choices must be left entirely to individuals*. Only substantive rules have the potential to realise the ideal of liberal government. Unfortunately, they are never absolute.

Constitutions never rule out particular political outcomes but simply alter the operation of the political system in ways we hope are beneficial on net. Treating constitutions like binding rules or insurance policies obscures this fact.

Chapter Three

Constitutionalism and Punctuated Public Opinion

3.1. INTRODUCTION

There has been an increasing recognition among political economists that ideology plays an important role in economic and political behaviour. Few analyses, however, have considered the crucial role played by social interaction in the dynamics of public opinion. People do not develop ideologies in isolation but in interaction with one another. Ideological development is a social process and should be of great interest to the social scientist.

This chapter will draw on the "punctuated equilibrium" literature in political science, as well as the phenomenon of availability cascades analysed by economists and legal scholars, to argue that social interaction sometimes leads to large spikes in preferences. These preference spikes can have very significant effects on political outcomes, particularly the individual freedom people enjoy. The effect of such swings in public opinion depends crucially on the set of political institutions with which they interact. This relationship, however, is not straightforward.

I will focus on those structural features of constitutions which erect barriers to policy change by increasing the effective majority required for enactment. Following Buchanan and Tullock (1962), most liberals have assumed that stronger constraints of this type will unambiguously lead to more liberal policy. The increased liberalism stemming from higher effective supermajority requirements needs to be weighed only against the increased decision-making costs. I will argue that this is not the case and suggest that structural constraints have both costs and benefits in terms of strictly negative freedom.

When some exogenous factor leads to a short-term preference spike in an illiberal direction, structural barriers to policymaking will delay the enactment of illiberal policy but also its reversion to normality. Further, if the increase in illiberal sentiment is faster than the subsequent reversion, we should expect the total duration of illiberal policy to be greater with higher effective majority requirements. Structural constraints may prevent some instances of panic policymaking but may also worsen the effect of those crises which do become reflected in policy.

Without offering a thorough empirical defence of this proposition, I will suggest that alcohol prohibition is likely a case in which this happened. More countermajoritarian polities were late to enact prohibition and late to repeal it, relative to those based on the majoritarian Westminster model of democracy, and lived with prohibition for a longer period in total. While more study is needed to confirm this tendency, the prohibition experience is suggestive.

3.2. IDEOLOGY AND POLITICAL BEHAVIOUR

3.2.1. Preferences versus Incentives

Methodologically individualist analyses of political behaviour have tended to focus on the incentives and constraints facing political actors. Political Economists and other rational choice social scientists have generally followed Stigler and Becker's (1977) advice to treat preferences and ideology as constant across time and individuals and thus not a relevant factor in political and economic analysis. While certain subsections of the various structural schools of social science have continued to consider ideology,[36] their analyses are based too heavily on a reified vision of society. This is not the place to provide a detailed defence of methodological individualism, and I will direct my argument to those who accept the arguments of Hayek (1949) and others who have argued that action ultimately derives from the individual, while recognising that individual action is always embedded in a network of social relationships (Granovetter 1985; Nooteboom 2007).

There have, of course, been political theorists broadly classifiable as methodological individualists and rational choice theorists who have made ideology a central part of their analysis. Adam Smith and John Stuart Mill were both preoccupied with the moral character of humans. More recently, important contributions to our understanding of the role of preferences in economic and political decision-

[36] Though orthodox Marxism, of course, involves perhaps the most thoroughgoing insistence on the dominance of incentives over ideology.

making have been made by Ludwig von Mises (1957), Douglass North (1981, 1988), and Robert Higgs (1987, 2007).[37]

This section will argue that our decisions generally, and political decisions in particular, depend crucially on both our positive understanding of the world and our normative evaluation of what is right, good, and desirable. That is, we act based on our ideology.

3.2.2. The Importance of Ideology

Even if we take the idea that people respond to incentives seriously and assume perfect rationality, ideology is an unavoidable part of human choice. As Mises (1957: 140) puts it, "there is no such thing as interests independent of ideas, preceding them temporally and logically. What a man considers his interest is the result of his ideas." In a basic sense, the subjective nature of preferences means that we cannot simply read off the incentives which motivate people from the material situation in which they find themselves. Looking at the phenomenon of fashion makes this obvious. The demand for musical performances of power ballads peaked in the 1980s and has since fallen to a much lower level. This can only be explained by a change in people's musical tastes, not by changing constraints and opportunities in the physical world.[38]

In addition to this evaluative component of ideology, Mises points to the descriptive aspect of ideology. Even taking preferences as given, it is our ideology which helps us make sense of the world in order to pursue our goals. Humans do not make decisions as disembodied calculators, as Chicago School price theory sometimes seems to suggest, but as boundedly rational agents relying on internalised heuristics (Tversky & Kahneman 1974) and external institutions (North 1993; Smith 1962, 2003). The most effective means of pursuing our preferences is seldom obvious and action will thus depend on our descriptive understanding of how the world works.

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[37] For other analyses combining methodological individualism, rational choice, and ideology see Hummel (1990, 2001); Caplan and Stringham (2005); Stringham and Hummel (2009); Taylor and Crampton (2009).

[38] It could be objected that the underlying preferences remain unchanged, with changing social incentives altering the demand for particular types of music or clothing. This may be so, but it is *expressed* preferences which are relevant to the argument presented here. Fashion changes preferences over goods, even if only through reputational pressures.

The fact that ideology is important to choice does not necessarily make it a relevant explanatory factor for the social scientist. If individuals' ideological commitments were the result of random chance and independent of one another, there would be nothing interesting to say about ideology. This is not the case. Our ideology, in both its normative and descriptive aspects, is shaped by the ideology of those around us.

3.2.3. Ideology and Political Behaviour

While no human choice is ever devoid of an ideological component, there is reason to think that political choices in particular will be detached from the constraints and opportunities of the material world and dominated by ideology. Rational choice social science has generally assumed that people act rationally in all spheres of life and regardless of the institutional environment. Public choice theory is quite explicit in its insistence that people are guided by utility maximisation in the political sphere just as strongly as in the market. Buchanan (1983: 13-14) insists that individual utility maximisation is the appropriate lens with which to study both market and political choice, suggesting that "the burden of proof should rest with those who suggest that wholly different models of man apply in the political and economic realms of behavior." While there have always been economists stressing the importance of the institutional environment in which choice is made (Simon 1956, Smith 1962, 2003; Ostrom 1990; North 1993) and other social scientists pointing to the symbolic nature of politics (Edelman 1964, 1971; Gusfield 1963), the most compelling answer to the behavioural symmetry hypothesis has come from within the public choice school itself.

Brennan and Lomasky (1993) accept the idea that individuals act to maximise utility in the voting booth just as they do in the market. The incentives faced by voters, though, mean that they will not necessarily vote for policies which, if enacted, would most satisfy their preferences. The paradox of voting identified by Downs (1957) implies that since the probability of casting the decisive ballot is vanishingly small, the individual voter has no incentive to become informed of the merit of alternative policies. The benefits of becoming so informed will almost always outweigh the costs. Rational

people will choose to remain rationally ignorant.[39] Of course, this leaves unanswered the question of why people choose to vote at all. The costs of getting to the voting booth to cast one's ballot are not particularly high, but it is hard to see how they could be less than the expected benefit of a single vote in terms of electoral outcomes. How, then, are we to explain the high levels of voter turnout we see in reality?

Brennan and Lomasky point out that people act for two basic reasons: to bring about some state of affairs or because they value the action in itself. That is, people act to satisfy both their *instrumental* and *expressive* utility. Expressive utility includes the warm feeling we get from indulging our biases and ideological commitments. In everyday economic life, our choices have consequences and, according to Brennan and Lomasky, instrumental concerns will dominate. In the voting booth, though, our choices are never decisive and we thus do not face their consequences. With the instrumental value of political behaviour being so low, expressive concerns will come to dominate. Voting, as Brennan and Hamlin (1998: 150) put it, is "much more like cheering at a football match than . . . purchasing an asset portfolio."

If a voter has a mild distaste for dark-skinned people, for example, he might vote for policies which harm them even when he would be unwilling to incur the costs of those policies were he the decisive voter. Roback's (1986) study, which shows that streetcars were segregated in the antebellum South through democratic politics when there was insufficient consumer demand to enforce such a policy in the market, is a historical example of instrumentally irrational but expressively rational voting in action. Even most racists would have been better off, all things considered, without the law enforced but voted for it anyway.

Caplan (2007) makes a similar argument. For him, people have preferences over beliefs: we derive utility from believing things which make us feel better about the world and ourselves, even if those beliefs are irrational in an epistemological sense. Caplan argues that irrationality is a normal good in that people demand more at lower prices. In the political sphere, the individual consequences of

[39] Somin (1998) reviews the empirical evidence for voter ignorance.

irrational beliefs are practically zero and so voters will consume irrationality to the point of satiation. Voters believe whatever they feel like believing without concern for the consequences.

Political economists focusing on the role of interest groups (Olson 1971; Tullock 1967; Krueger 1974) sometimes come close to denying the relevance of the dominant ideology on political outcomes. Several empirical studies, however, have shown that public policy is generally consistent with public opinion (Page & Shapiro 1983; Caplan & Stringham 2005) and responsive to changes in public opinion (Crampton 2002; Althaus 2003).

3.3. PUNCTAUTED PUBLIC OPINION

3.3.1. The Case for Punctuated Public Opinion

The above analysis suggests that ideology and preferences are of crucial importance in understanding the operation of political institutions and evaluating their robustness. Of course, preferences are never stable in the long term, and we need to consider cultural change. Robust political economy requires that we take a dynamic view of both institutions and ideology. If politics is not primarily governed by instrumental self-interest but expressive preferences, rational irrationality, and symbolic signalling; a rational-choice approach to political change is not sufficient.

We need to consider the social dynamics of ideology. One aspect of cultural change is the slow, long-term evolution which becomes obvious when we compare attitudes of people today with those of past generations. People in developed nations today have very different attitudes towards race and sexuality than was the case a century ago, for example. While this type of change may well be the dominant factor determining the freedom people enjoy, a more pertinent dynamic for institutional design is the possibility of fast, short-term changes in political preferences. Whereas a steady change in preferences will very likely find its way into policy under in any institutional environment, the effect of short-term fluctuations in preferences depends on the particular mechanisms by which preferences become policy. This will be the subject of this chapter.

There are good theoretical and empirical reasons for thinking preferences might be characterised by long periods of stability and short bursts of rapid change. The punctuated equilibrium literature in political science has documented rapid changes in those issues accepted as being on the political agenda (Kingdon 1984; Baumgartner & Jones 1991, 1993; True et al 1999). Punctuated equilibrium theory suggests that policy is normally subject to negative feedback and political outcomes will exhibit a significant degree of inertia. Most policy issues, most of the time, are contained within a "policy subsystem" of political elites and draw little attention from the public at large. This containment leads to negative feedback and significant policy stability. The dominance of these iron triangles (Adams 1981) of the legislature, bureaucracy, and interest groups is occasionally broken down as the issue is put on the public's agenda, however. This leads to a situation in which positive feedback comes to dominate and we see large shifts in preferences and policy, leading to a new steady state. This dynamic of long periods of stasis punctuated by phases of rapid change is particularly pronounced in the United States, where conservative political institutions reinforce the status quo and require significant pressure to build before policy change becomes feasible. Policy regarding crime, environmental issues, drug regulation, gun control, healthcare, and education has been found by various scholars to be in line with the punctuated equilibrium model (True et al 2009: 163).

Moral panics (Cohen 1972; Goode & Ben-Yehuda 1994) also involve rapid changes in public understandings and policy preferences. According to Cohen, moral panics involve a salient event shifting the public attention to some supposed threat to existing ways of life. Some group is identified as the force behind this threat and caricatured in the media as a "folk devil." This easy-to-digest image of danger leads to a snowballing of public attention and frequently results in regulation as political elites recognise the political opportunity present in such panics. Cohen focuses on the Mod and Rocker youth subcultures as the object of past panics. Other examples include more recent youth subcultures (such as ravers and boy-racers), drugs, pornography, and inner-city violence. In each case, a previously unrecognised issue becomes extremely salient with public concern feeding back upon itself.

The tendency for preferences to become self-reinforcing at the population level at certain points in time has recently been studied by scholars in law and economics. The public availability of expressed opinions can lead to cascades of stated opinions. Kuran and Sunstein (1999) offer an overview of these arguments and relate them to risk regulation. "Availability cascades" come in two basic forms: reputational and informational. Reputational cascades occur when people keep quiet or actively falsify their preferences in order to secure social benefits or avoid social costs. As more people come to conform to the publicly desirable behaviour, the costs of others dissenting increases. Reputational pressures are thus self-reinforcing (Akerlof 1976; Kuran 1989, 1991, 1995). Informational cascades operate similarly but are based on factual opinions rather than beliefs. If many people express belief in some proposition, those who would otherwise believe the opposite are sent a strong signal that the majority has private information to which they are not privy (Bikhchandani et al 1992; Banerjee 1992; Hirshleifer 1995; Sunstein 2000). In both cases, a biased pool of available public preferences or beliefs becomes self-reinforcing.

Kuran (1995) argues that preference falsification has significant social consequences. Kuran distinguishes between an individual's public opinion – the views he openly expresses on a particular issue – and private opinion – the way he privately feels. Our public opinion depends not simply on our private opinion but also on the social incentives we face. Each person will place different relative weights on expressing their true preferences and pursuing social advantage.

The effect of hiding an already unpopular belief or disposition – such as a particular political view or sexual attraction to one's own gender – is to increase the social cost of others revealing a similar preference. There could, then, be a significant section of society whose private opinion differs drastically from their professed public opinion. Because each closeted individual considers the opinion extremely rare, none is willing to reveal it publicly. In addition to making preference falsification more likely among others, this can alter the underlying distribution of true preferences. Once a lie is told sufficiently often, even the liar may come to believe it sincerely, and the next generation will not have access to arguments divergent from the dominant ideology.

This creates stability in expressed public opinion (Kuran 1987) but can lead to abrupt shifts once a few are prompted to reveal their true preferences by some exogenous shock, which then prompts those with a relatively low threshold of preference revelation to come out of the closet, which then prompts still more to reveal themselves. A few voices of dissent, then, can create a tipping point which gives rise to unforeseen revolutions in public opinion (Kuran 1989, 1991). Kuran points to the fall of communism and the French Revolution as examples.

Even in the absence of such reputational pressures, beliefs can become self-reinforcing due to a biased pool of expressed factual judgements from which individuals form and update their beliefs. The limits of human cognition mean that the judgements of others influence our beliefs. This is entirely rational, since it is usually safe to assume that others have good reason for holding their beliefs and piggybacking on their cognitive efforts saves us time and effort.

The classic "urn game" in game theory illustrates the epistemic rationality of conformity. In this game, players are faced with two outwardly identical urns, one contains two white balls and one yellow ball, the other contains two yellow balls and one white ball. One urn is chosen at random and players take turns to publicly guess its contents. Each player draws a ball from the urn without showing the other players and makes their guess, with full knowledge of the previous guesses of others. This will produce a misleading informational cascade whenever early players happen to draw the less common ball from the urn, with subsequent guesses providing no relevant information. Bikhchandani et al (1992) model individuals as basing their behaviour on some combination of a private signal they receive as to the benefits and costs of performing some action and a social signal they receive from the actions of others. As the social consensus on the most advantageous course of action increases, so does the strength of the social signal. Past some threshold, an individual will completely ignore their private signal (that is, their own best judgement) and follow the crowd.

This will increase the strength of the social signal for others, compelling those with a higher threshold to conform and triggering an informational cascade. Like a reputational cascade, this can mean that everyone ends up holding a belief most would reject if left to decide on the matter in isolation: the

blind lead the blind. If Alice shares her belief in proposition X with Bob - who would otherwise believe not-X but sees Alice as better informed and so comes to believe X - Carol would need to have a strong conviction in not-X in order to remain convinced despite the disagreement of her fellows. As more people are exposed to this social consensus, the social signal becomes overwhelming even if Alice is the only one whose personal judgement favours X.

Kuran and Sunstein (1999) point to the panics over Love Canal, Alar, and TWA Flight 800 as cases where reputational and informational cascades combined to create biased risk judgments and excessive policy responses.

The nature of politics makes the political preferences particularly susceptible to reputational cascades. The arguments of Brennan and Lomasky (1993) and Caplan (2007) discussed above show that political behaviour is almost entirely divorced from practical consequences. In the midst of a reputational cascade, then, the individual has no incentive to calmly look at the evidence to adjust their political preferences to reality and every incentive to go with the crowd.

There seems, then, to be two broad classes of abrupt changes in public opinion. Some, such as the unforeseen revolutions discussed by Kuran, involve one stable equilibrium being abruptly displaced by another. In these cases, the transition is fast, but the effects are lasting. While political institutions may have significant welfare consequences during the period of change, by slowing or speeding the reaction of policy to changing preferences, the long-term policy outcomes are likely to be similar in most institutional environments. The other class of abrupt policy change occurs when a long-run opinion equilibrium is disturbed for a short period before returning to normal. The risk perception panics described by Kuran and Sunstein (1999) and moral panics seem to fit this pattern. The political consequences of these short-term spikes in preferences are potentially more sensitive to the institutional environment in which they occur and this type of preference volatility will be the concern of this chapter.

3.3.2. The Political Consequences of Preference Spikes

Unfortunately for the liberal, there is good reason to think that preference spikes are more likely to happen in an illiberal than liberal direction. Given that preference spikes are generally triggered by some exogenous salient event or crisis, panicked reaction is likely to dominate reasoned debate. Sunstein (2000: 96) suggests that some arguments have a rhetorical advantage over others. Punitive damages awarded by juries, for example, almost always increase with deliberation whenever the average pre-deliberation preference is above zero. Sunstein suggests that this is due to the rhetorical asymmetry favouring those arguing for more severe penalties. "He did a horrible thing!" and "The poor victim!" are more powerful arguments than "Well, he did wrong, but let's not get carried away."

Caplan (2007) shows that people have policy positions systematically biased against the market, against foreigners, towards employment rather than production, and towards pessimism when compared with economists, whom he argues are experts in policy analysis. This difference persists even after controlling for income, party identification, and other factors known to influence policy positions. He concludes that the median voter would be far more liberal in these respects if they understood economics.

Given that the human mind evolved in an environment very different than that we face today, this is not surprising (Rubin 2001, 2003; Kanazawa 2004; Shermer 2007). The most relevant period in considering the peculiarly human aspects of behaviour and intelligence seems to be the Pleistocene, the period from around 1.8 million years ago until the birth of agriculture ten thousand years ago. It is, of course, dangerous to speculate exactly what life was like for the humans and proto-humans in this period, especially since there was likely a lot of variation across time and space. All available evidence seems to suggest, however, that people lived in groups of less than 200 people (Rubin 2001; Buller 2005: 58-63). The minimal and highly plausible assumption that people lived in small groups during the Pleistocene is enough to reach interesting conclusions about cognitive traits which now seem ill-suited to our current environment.

The most obvious of these is the tendency for zero-sum thinking. As Adam Smith pointed out more than two centuries ago, "The division of labour is limited by the extent of the market" (Smith 1776: Book 1, Ch. 3). In the Pleistocene, the extent of the market was quite limited, since small groups are not conducive to specialisation. In an environment without gains from trade, it makes sense to see any transfer of resources between two people as just that – pure transfer. In this environment without production, the resources available would have been more or less fixed. If Alice ate a piece of meat, Bob would have to go without. The Pleistocene world would have economically approximated a zero-sum game. One person's gain would have largely been another another's loss and it would make little sense to differentiate between the allocative and productive aspects of trade, since the latter would barely have existed (Rubin 2003: 161).

This has the potential to cause illiberal preference spikes when the majority of the population see some minority doing well economically. Our zero-sum bias leads people to assume that those getting ahead must be stepping on someone's toes and leads to popular calls for action. When combined with our anti-foreign bias, which is also the result of our evolutionary past, this can lead to some rather horrific policy outcomes, as the rise of National Socialism demonstrated most clearly. Contemporary anti-immigrant sentiment in the United States and elsewhere is a more typical example. Whenever preferences spike regarding the appropriate response to some minority group such as Jews and Immigrants, it is very likely to spike in an illiberal direction. "They took our jobs!"[40] is a more compelling argument for most people than anything the liberal side can muster in times of crisis.

More generally, Doing Something about a problem has a rhetorical advantage over not doing anything in group deliberation. In the Pleistocene, where action was taken by individuals or small groups, doing something to address a potential problem was generally a good idea, since the unintended consequences at such a small scale are normally negligible.[41] When demanding action at a societal level, though, unintended consequences are ubiquitous. As Mises (1920) and Hayek (1937) showed

[40] Er *Jerbs*!
[41] Attempts to cure illness with crude and dangerous medical practices may be a counterexample. See Millikan (1998) for a history of iatrogenic disease.

during the socialist calculation debate, society as a whole is not something which any human decision-maker can control centrally. Evolution, though, has conditioned us to innately have the fatal conceit that such central planning is possible. Consequently, whenever a problem arises, people are much more likely to support government intervention than restraint.

While there may be cases in which the liberal position has a rhetorical advantage (taxation, perhaps), the general tendency seems to be for preference spikes to be interventionist. While I offer no rigorous empirical case for this proposition here, history seems to confirm its generality. Robert Higgs's (1987,1988, 2006, 2007) study of American history shows that crises of various sorts tend to lead to the growth of government and the abrogation of economic and civil liberties. While there are some examples of abrupt shifts in preferences in a liberal direction, such as that accompanying the end of communism and the acceptance of homosexuality in western democracies, these have tended to involve a punctuated shift to a new stable equilibrium, rather than a short-term spike.

3.3.3. Robustness to Volatile Preferences

The effects of preference spikes depend on the political institutions through which they are filtered. Political institutions can be seen as alternative technical mechanisms of converting the preferences of the population into enforceable rules of conduct. It is tempting to suppose that we should prefer those institutions which do this most efficiently. Calls for "more democratic" institutions generally reflect a desire for policy more responsive to changing public opinion. With irrational voters, responsiveness to public opinion is not necessarily desirable, and in some situations we should be grateful for inefficiencies in the transformation of preferences into policy.

Political economists have been rightly concerned about the problematic principal-agent relationship between voters and politicians. Any slack in the relationship which allows politicians to act in ways contrary to the preferences of voters provides opportunities for corruption. If voters cannot fully control politicians, there is scope for policymakers to enrich themselves at the expense of the public. However, Crampton (2003: 65-79) shows that the agency costs of knavish policymakers needs to be

weighed against the costs of foolish voter preferences. The optimal level of slack in the principal-agent relationship is, therefore, above zero.

The effect of preference spikes on policy under alternative sets of political institutions is not straightforward. While particular rights and liberties delimited in the constitution may have some effect via those mechanisms described in the previous chapter, structural constraints designed to make policy change more difficult will have consequences in all policy areas and will be my concern in this section. For analytical simplicity, I will treat all those structural rules which increase the size of the minimum coalition required to change policy into one metric of majority requirement. I will also ignore the agency costs of self-serving politicians and consider only the costs and benefits associated with a political system which transforms voter preferences more or less efficiently into policy.

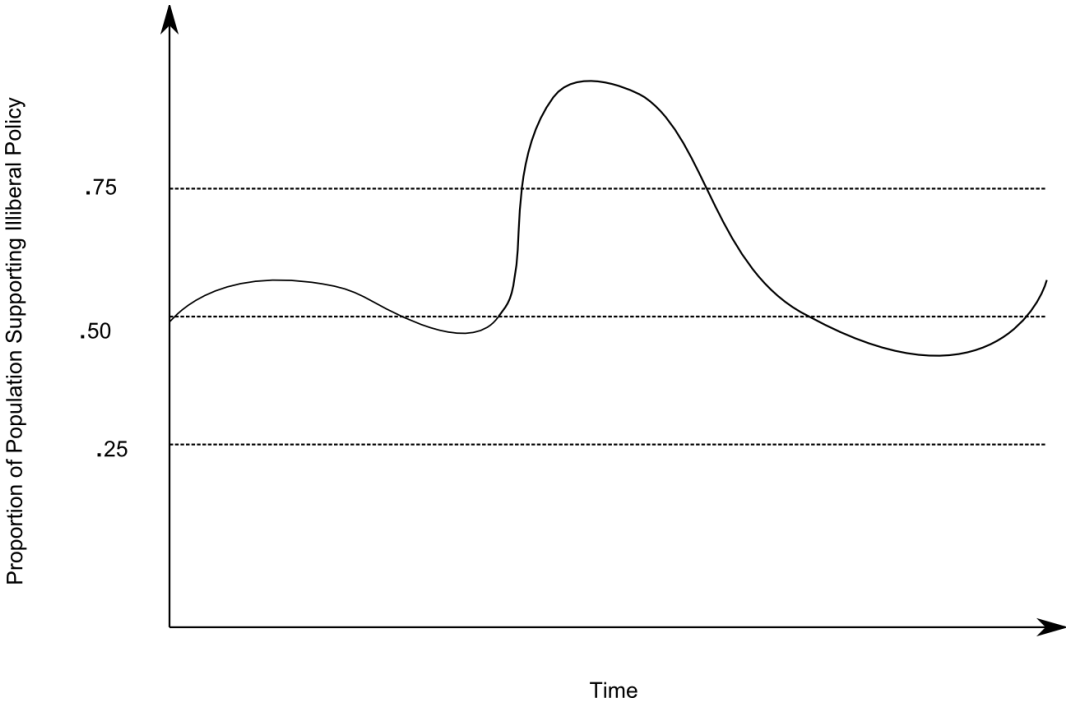
The most obvious effect of preference spikes on structural constraints is to render them less effective at preventing policy change based on short-term fluctuations in preferences. The logic of informational and reputational cascades implies that as the proportion of the population supporting some policy increases, so does the likelihood that more still will come to support it. If we are weighing the benefits of more closely approximating unanimity against increased decision-making costs, as in Buchanan and Tullock (1962), the phenomenon of group polarisation should tilt the balance towards lower majority requirements (i.e. less constrained policymaking), since the benefit of greater consensus is less than previously thought. On the other hand, the same effect might lead us to prefer *higher* majority requirements as the less stringent rules no longer offer an adequate level of protection.[42]

In addition to reducing the benefit of structural constraints, the existence of preference spikes means that constitutional constraint can be positively costly, even on the most libertarian of grounds. Constitutional rules such as supermajority requirements and bicameral legislatures designed to make policy change more difficult will reduce the chances that a preference spike will be reflected in policy.

[42]This is similar to the income and substitution effect of a change in the price of a good. It is impossible to say that either will dominate in the abstract.

On the other hand, if policy does respond to the preference spike, structural barriers may delay the reversion to normality and, in extreme cases, could even lock in unpopular policies indefinitely.[43] Assuming that the same level of support is required to enact an illiberal policy as to repeal it, the extreme case of permanent lock-in would occur whenever support for the illiberal policy spiked sufficiently to pass the policy, and support for repeal never becomes sufficient to reverse the policy. This would be likely to occur if there were a proportion of the population greater than one minus the supermajority requirement always supporting the illiberal policy, perhaps on religious grounds. Such a situation is depicted in Figure 3.1.

Figure 3.1.: Supermajority requirement locks in bad policy.

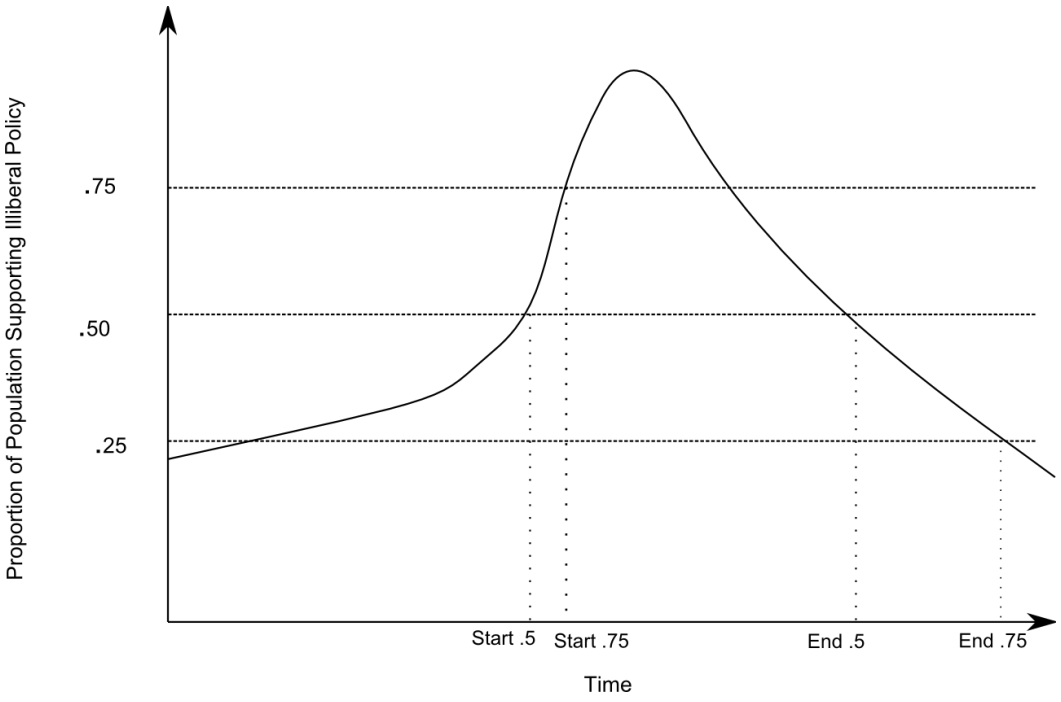


Suppose that the threshold for changing policy is set at .75. Since support for the illiberal policy exceeded this level before returning to normal but never became weak enough for the policy to be repealed, the policy will be locked in. Were the required majority set to 50%, we would have expected to see shorter bouts of illiberalism earlier but would not be stuck in the illiberal equilibrium forever. It is not clear which state of affairs is preferable.

[43] The probability of locking in bad policies can be reduced by constitutional rules such as successive majorities and sunset clauses which are sensitive to the importance of time. These will be discussed below.

More realistically, structural constraints could slow the reversion to liberal policy after the preference spike has subsided. We should expect such a dampening to happen with any preference spike, but in some situations it may lead to a longer total period of illiberal policy. Whether this is the case depends on the relative speed of preference change on the rise and fall of the preference spike. If support for illiberal policy increases faster than it subsequently declines, we should expect the period of illiberalism accompanying the spike to increase with the required supermajority. Unfortunately, this fast rise and slow decay in illiberal sentiment is exactly what moral panics and reputational cascades should lead us to expect. This situation is depicted in Figure 3.2. Since the spike comes on much faster than it degrades, the duration of illiberal policy is greater under the 75 percent supermajority rule than under simple majority.

Figure 3.2.: Supermajority requirement prolongs bad policy.



Once we consider the dynamics of agenda setting, short-term preference spikes may be even more likely to increase the half-life of bad policies, or lock them in permanently. It is not only the proportion of voters supporting repeal which will determine the duration of a policy but also the salience of the issue and the resulting incentives of political actors. The attention given to a particular

issue at any one time seems far more volatile than the proportion of voters which support one or another policy response to that issue (Downs 1972). Where punctuated equilibrium theory, availability cascades, and moral panics see stasis as the norm occasionally but consequentially disrupted by abrupt change; agenda-setting theory sees a cycling among various issues as the standard dynamic of issue attention.

Zhu (1992) models the agenda-setting process as zero-sum competition between issues, with an increase in attention given to one issue generally leading to decreased attention among others. Mass media and public attention has a limited carrying capacity and, generally speaking, only 5-7 issues can remain salient at any one time (McCombs & Zhu 1995). This hypothesis is supported by measures of salience derived from media coverage and opinion polls asking respondents about important issues. McCombs & Zhu (1995) show that issues tend to remain on the public agenda for a limited time. While certain enduring issues such as jobs, government spending, and foreign policy remain very salient for years at a time; others, such as welfare, health, the environment, and education remain salient for less than six months on average.

This suggests another important aspect of preference spikes. In addition to an increase in illiberal preferences, panics of various sorts also make an issue extremely salient for a short time, before it returns to obscurity. Wien and Elmelund-Præstekær (2009) show that media hypes, which generally accompany moral panics, occur regularly and each last only around three weeks.

If we assume that politicians are bound by electoral incentives to campaign on issues the public finds important, this could lead to a lock-in of bad policies even when widely, but latently, opposed by a very large majority. Pursuing policy change expends resources and political capital and will only prove worthwhile when there are votes to be gained or interest groups to be wooed. If the policy leads to strong and widespread dissatisfaction, there are advantages to putting repeal on the political agenda. If few people notice the effects of the policy, or are tired of hearing about the issue due to overexposure during the panic, pursuing repeal is unlikely to be a wise political move. This means that we are likely to see a ratcheting of unwanted policies which could have a significant aggregate

effect (Higgs 1987). We should expect this to be particularly so in countries with strong structural barriers to policy change. The web of regulations which exist in the United States when compared to less constrained democracies provides anecdotal evidence of this hypothesis.

3.4. ALCOHOL PROHIBITION

The experience of alcohol prohibition in the early twentieth century seems to be a case of a spike in preferences (albeit a protracted one) leading to illiberal policy, with structural constraints slowing repeal. There was a rush to prohibit alcohol in a number of countries around the world, followed by a similar rush for repeal. Historians such as Sinclair (1962) and Kobler (1973) have pointed out the dramatic swings in public opinion regarding alcohol prohibition, and Schrad (2007) explicitly conceptualises the rise and fall of prohibition as an instance of policy punctuation due a shift from negative to positive feedback.

The spikiness of public opinion is particularly obvious when it comes to national prohibition in the United States. Despite the daunting institutional barrier of a constitutional amendment, large alliances were formed to pass the Eighteenth Amendment and to reverse it thirteen years later. This involved an enormous shift in public opinion which only becomes understandable once we consider the self-reinforcing nature of political ideas at the population level. While there had long been a temperance movement in the United States, as well as those other countries and provinces which would eventually prohibit alcohol, widespread support for prohibition at the national level seems to have come on quite quickly. Reliable measures of public opinion are hard to come by, but the available evidence suggests that prohibition was due to a very rapid spike in preferences around 1912-15 with support remaining high until around 1920, before falling off quickly, though not as quickly as it had increased in the first place. If this stylised story is true, we should expect structural barriers, when not strong enough to prevent prohibition altogether, to delay both the enactment and repeal of prohibition and to increase its total duration.

Using data from the *Reader's Guide to Periodical Literature* between 1890 and 1950, Schrad shows that media attention to alcohol prohibition increased dramatically beginning around 1915.[44] While there was a generally favourable attitude towards national prohibition among articles prior to this time, it was not until around 1911 that support became stable at high levels. The imbalance in coverage quickly dropped to approximate parity around 1921, once the Eighteenth Amendment had come into force, before beginning a steady trend towards greater disapproval from 1925.[45] There was also a sharp but brief spike in support for national prohibition among the media in 1908. This suggests that in countries like the United States where policy change takes some time, preference spikes will not alter policy unless support stays high for some time.

The Literary Digest ran opinion polls on the prohibition question in 1922, 1930, and 1932.[46] The 1922 poll was mailed to over ten million people, of which around 922,000 replied. In 1930, over twenty million were queried, with over 4.8 million responses. In 1932, there were around 4.7 million responses. The sample size of these polls, then, is not a problem, and they represented a noble early attempt at scientific polling. They were, however, biased in a number of respects (Willcox 1931; Robinson 1933). Factors favouring wets were an overrepresentation of men and city dwellers, and the discouragement from participating in the polls by Dry leaders. In the other direction, the polls included a disproportionate number of wealthy people, who were more likely to be dry. There were, then, biases heading in both direction. Robinson (1933) argues that the net bias was towards wets. Willcox (1931) suggests the opposite. I will not take sides on this dispute, since it is the trends in support which are of most interest here. Assuming each of the polls was biased in roughly the same way, their comparison remains useful.

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[44] Hart (1933) makes a similar analysis, though for a shorter period. His results are consistent with Schrad's.

[45] Part of this dramatic shift in media attention is likely due to the relative effectiveness of wets and dries over the period in question to have their voices heard. In the drive for prohibition, the dries pioneered many highly effective techniques of communication. Columnists in dry organisations' employ posed as neutral journalists, and pressure was placed on newspapers by those in a position to withdraw advertising revenue. Less offensively, and possibly more effectively, dry organisations provided press-ready copy and statistics which decreased the cost to newspapers and magazines of running stories favouring prohibition. This increased dry influence through a mechanism similar to that described in the political sphere by Hall and Deardorff (2006). These same techniques were later utilised by wets. The early overrepresentation of dry sentiment in the press due to deceit and journalistic subsidy, then, was later replaced by a similar overrepresentation of support for repeal (Sinclair 1962: 310-311).

[46] The Literary Digest (1933) provides the results of each of these polls.

While these polls tell us nothing about the rise of prohibition sentiment, they do reveal the dramatic fall in support. In 1922, 38 percent of respondents were in favour of continued enforcement of the Eighteenth amendment, with 41 percent preferring modification to allow beers and light wines, and 21 percent supporting repeal. By 1930, the number favouring repeal had reached 40 percent, with the remaining 60 percent split approximately evenly between enforcement and modification. In 1932, the question was modified to a binary choice between continuance and repeal. When given this stark choice, 74 percent preferred repeal.

It seems reasonable, then, to think of support for national alcohol prohibition in the early twentieth century as a preference spike. Support for prohibition grew quickly, remained high for a few years and then degraded until opposition was overwhelming.[47] Exposing the consequences of this preference spike in different institutional contexts, however, is far from straightforward. The small sample size combined with the myriad potentially confounding factors makes a rigorous statistical test impossible. Looking at the experience of those democracies which enacted prohibition, however, does provide a moderately compelling anecdotal case that more significant structural barriers increased the duration of alcohol prohibition.

Since only a few countries prohibited alcohol during the relevant period, some of these being non-democracies (Russia/USSR) or predominantly Muslim (Turkey), I will include Canadian provinces in my analysis. Analysing U.S. States would not be useful due to the existence of national prohibition interrupting the natural progression of legislation, as well as the lack of variation in constitutional constraints among the States. Including countries with national prohibition as well as Canadian provinces gives a total of 15 democracies, which are listed in Table 3.1, along with the years in which alcohol prohibition was in force [48] and a classification as either a consensus, moderate, or

[47] It is possible that the drop in support is due to voters being exposed to the negative effects of the policy, rather than a short-term spike which would subside regardless of enactment. This possibility does little to change the argument presented here, however, as structural barriers will delay reversion to policy normality regardless of what causes the drop in support.

[48] Prince Edward Island is coded as having prohibition only until 1930, despite the fact that *de jure* prohibition remained in force until 1948, since *de facto* prohibition had ended by 1930. Davis (1990: 327-334) argues that liquor was just as easy to obtain in Prince Edward Island after 1930 as in the other Maritime provinces, where prohibition had officially ended. Between 1930 and 1948, there was a large increase in government revenue

majoritarian democracy in Lijphart's (1999) terms.[49] Table 3.2 provides the mean years of enactment, repeal, and duration broken down by the level of structural constraint.

Table 3.1

	Enactment	Repeal	Duration	Type of Democracy
United States	1920	1933	13	Consensus
Finland	1917	1932	15	Consensus
Iceland	1915	1922	7	Moderate
Norway*	1919	1927	8	Moderate
Estonia	1918	1920	2	Moderate
Newfoundland	1915	1924	9	Majoritarian
Alberta	1916	1924	8	Majoritarian
British Columbia	1917	1921	4	Majoritarian
Manitoba	1916	1923	7	Majoritarian
New Brunswick	1917	1927	10	Majoritarian
Nova Scotia	1916	1930	14	Majoritarian
Ontario	1916	1927	11	Majoritarian
Quebec	1919	1919	0	Majoritarian
Saskatchewan	1916	1924	8	Majoritarian
Prince Edward Island**	1901	1930	29	Majoritarian

*Partial prohibition

** End date indicates approximate end of de facto prohibition.

Table 3.2

	Mean Enactment	Mean Repeal	Mean Duration	N
Consensus	1918.5	1932.5	14	2
Moderate	1917.3	1923	5.7	3
Majoritarian	1914.9	1924.9	10	10

from taxes on "medicinal" liquor sales, which allowed those within ten miles of a dispensary to purchase 24 oz of hard liquor per day, and those further away to purchase double this. The black market in liquor, which had always accounted for most of the alcohol consumed on Prince Edward Island, increased dramatically during this time, with little action taken by authorities (Robinson & Robinson 1995). Many wets felt ambivalent about the repeal of prohibition, since it was unclear whether the alternative of government monopoly supply would make alcohol more available.

[49] Assuming that Presidential veto, bicameralism, and proportional representation all increase the effective majority required for policy change, I have classified any country/province with two or more of these features as consensus, with one as moderate, and with none as majoritarian. This is a fairly coarse distinction, but the available data simply do not allow finer-grained comparisons.

While Norway never prohibited alcohol completely, its partial prohibition was motivated by similar dry sentiment and produced similar social problems. It is therefore included in the analysis.

Even though a majority of the population had expressed support for prohibition before the turn of the twentieth century, Canada never prohibited alcohol at a national level. A non-binding referendum in 1898 found 51.2 percent of the country in favour of prohibition, including majorities in every province expect Quebec, which voted overwhelmingly against. The Canadian government did not act on this, however, since many felt that the margin was too slim to justify imposing prohibition on Quebec, and, in any case, alcohol was being prohibited at a local level in many parts of the country (Dupré 2008: 6).

Every province in Canada did eventually pass laws completely banning the sale of alcoholic beverages. This is true even of Quebec, despite the overwhelming opposition from its predominantly French and Catholic population. While a total ban was passed, it was emasculated to exclude beer, wine, and cider before it was to come into effect in 1919 and was abandoned altogether the following year (Dupré 2008: 11-12). Quebec, then, never had absolute prohibition and had partial prohibition only very briefly. I retain the province in my analysis because my interest is in the *enactment* of prohibition laws. Quebec did enact such a law, though it never became effective. It was, at least partly, Quebec's Westminster version of democracy which allowed such rapid alteration and repeal.

While only the difference between moderate and consensus democracies proves significant at the 95% level for a difference in mean duration, the comparison between the majoritarian and consensus democracies merits some consideration.[50] Consistent with the theoretical argument outlined above, democracies with lower barriers to policy change both enacted and repealed prohibition earlier,[51] with prohibition being in force for a shorter period in total. Of course, we can presume that strong barriers prevented some countries from enacting prohibition at all. This protection, however, needs to be weighed against the longer half-life of any illiberal policy which does come about. These two factors

[50] We should take these results with a good dose of salt, however. In addition to the small sample size, all of those classified as majoritarian democracies are the current provinces of Canada.
[51] Though only the difference in year of repeal passes a t test for difference in mean.

are not entirely commensurable, and we need to recognise that structural constraints have both costs and benefits even when we take strictly negative liberty as our sole criterion of desirability.

3.5. CONCLUSION

The cursory and anecdotal case made here should be seen as only a first step in confirming the hypothesis that structural barriers increase the half-life of the bad policies caused by preference spikes. Further case-studies in the policy responses to preference spikes seem like the logical next step. The panic following the 2001 terrorist attacks on the World Trade Center and the subsequent overreaction in airport and other security measures will likely provide a useful case, since most countries have reacted with policy changes to some degree. This will require a more careful analysis than I have offered here, since the bad policy in this case is multifaceted and continuous, rather than a binary choice. Another possible test would be a cross-national comparison of the tendency Higgs (1987) identified for government spending to grow in times of crisis, before falling below the peak level and settle at a permanently higher steady state. If the hypothesis I have offered here is correct, and assuming that bad policy is reflected higher spending, we should expect the reversion to the steady state to be slower in more constrained democracies.

If correct, my argument has several implications for constitutional robustness. First, barriers to policymaking have both costs and benefits even when taking a purely negative libertarian worldview. These costs and benefits are not entirely commensurable, and anyone in a position to make a choice between alternative institutions must make a holistic judgement on their merits.

Second, constitutional constraints which require preferences to stay in place for longer periods of time will be more effective at protecting against panic policy. The successive majorities currently required to amend the constitution in some countries are an obvious example, though would also increase the duration of any bad policy which did pass this high threshold. Further, the delay required by successive majorities is likely to prompt many countries to ignore constitutional constraints altogether in a time of perceived urgency. A better option would be to require that all policies, or those within some constitutionally protected sphere, be subject to confirmation at some point after its original

enactment. This could either require the same majority to keep it in place as were originally required to enact it, or a weaker sunset clause requiring a simple majority or affirmation by the executive. This would put policies on an automatic trial period, with those without sustained levels of support being abandoned earlier than they would if the requirements for repeal were as strong as those for enactment.

Finally, the structural features of constitutions which increase the effective supermajority requirement for policy change are not as robust to illiberal preference change as we might have thought. If highly popular views are likely to become even more popular, increasing the effective majority requirement will be less effective than the counterfactual world without availability cascades. This leads to the pessimistic conclusion that structural constitutional constraints are not very robust in times of crisis. The previous chapter showed that mere parchment barriers to illiberal policy can be fairly effective in times when liberty would otherwise be abrogated. In terms of availability cascades, this could be because the constitution provides the liberal policy with a rhetorical advantage over illiberal policy, or at least reduces its disadvantage. Together, these two chapters suggest that constitution writers should devote more time to bills of rights relative to structural constraints than we might have previously thought.

Chapter Four

The Horrible Truth about Comparative Institutional Analysis

4.1. INTRODUCTION

The preceding chapters have shown that analysis of institutional robustness is far from straightforward. It is impossible to declare one set of institutions more robust than another simpliciter. Rather, the social scientist intent on reaching normative conclusions must specify precisely what normatively relevant outcomes she is analysing, as well as the causally relevant factors expected to influence this outcome. Without a clear view of both the dependent and independent variables, robust political economy is vacuous.

In this chapter I will go further, arguing that an algorithmic evaluation of alternative institutions or policies is simply impossible. While it is now commonly held that the economist cannot know an individual's preferences perfectly except by observing concrete choices, the idea of an underlying ordinal preference function is taken as axiomatic. I will argue that no such coherent set of preferences exists independently of choice. Rather than arguing against the possibility of a scientific welfare economics on epistemic grounds, as Austrian economists such as Mises (1949) Rothbard (1997a; 1997b) have done, I will do so on logical grounds. This will provide a more thoroughgoing critique of welfare economics which cannot be countered by rejecting the Austrian "praxeological" method of deduction.

When making choices, people do not maximise utility or a pre-existing preference function but make context-dependent tradeoffs of incommensurable goods. A well-ordered ranking of alternatives in terms of preference or welfare does not exist prior to choice but is constructed by the act of choice itself. This view is inconsistent with rational choice theory as articulated by von Neumann and Morgenstern (1964) but remains consistent with folk conceptions of rationality as goal-directedness and responsiveness to reasons.

While a working assumption of a pre-existing preference function is a reasonable operational fiction for the positive economist, I will argue that attempts to normatively evaluate alternative institutions or policies on welfare grounds cannot proceed as if preferences exist apart from action. Instead of masking our value judgements as value-free science, social scientists must realise that normative conclusions can only be derived from moral reasoning and that moral questions can never have a decisive answer.

4.2. THE EPISTEMIC CASE AGAINST WELFARE ECONOMICS

Economics has traditionally taken a utilitarian conception of value: the various goods individuals pursue give them a definite level of satisfaction which can be compared between individuals. Pigou's (1912) welfare economics, which provides the foundation for much policy-making and analysis today, is perhaps the most complete formulation of this approach. Pigou distinguished between private and external costs and benefits, insisting that each could be assigned a monetary value. The effect of smoke emitted from a factory on neighbours' health and happiness, for example, has a definite magnitude which can be compared, via the common denominator of willingness to pay, to ordinary marketable goods. While the epistemic problem of discovery might be difficult, the single metric of value makes policy evaluation conceptually straightforward.

A number of positivist economists, most notably Pareto (1906), began to question the scientific validity of this utilitarian approach. The economist as scientific observer never sees individuals' utility directly but only their choices. The comparison of utilities between individuals becomes impossible (Robbins 1938), and we can never know whether any policy which benefits some at the expense of others will increase aggregate welfare. Pareto, taking a minimal welfarist normative foundation, argued that the economist can justly say that one policy is superior to another if and only if at least one individual is made better off (as judged by his own preferences) without any individual being made worse off. While the Pareto criterion is compelling, it does not allow the economist to say much about welfare. Every real-world choice between policies will harm some at the expense of others and there will be no grounds for choosing between them.

Kaldor (1939), Hicks (1939), and Scitovsky (1941) revived the largely ignored work of Pareto in order to allow positive economists to talk about welfare without making interpersonal comparisons of utility. While rejecting interpersonal comparisons of utility, they argued that *potential* Pareto improvements are welfare-improving. Policies which benefit some at the expense of others, and are therefore not Pareto improvements, are potential Pareto improvements if the winners could compensate the losers, thereby making everybody at least as well off as they were before, regardless of whether such compensation is actually made.

Scholars such as Block (1977) have rightly questioned the morality of this approach, as well the empirical possibility of discovering whether a policy is a potential Pareto improvement, particularly when we take strategic falsification of costs and benefits into account (Stringham 2001). More fundamentally, though, the Kaldor-Hicks-Scitovsky approach retains the mistaken view that individual preferences exist independent of action.

The Austrian school of economics has been the most sensitive to the full implications of the impossibility of interpersonal comparisons of utility and the most insistent that positive economics should deal with choice rather than utility or preference. Mises was quite clear that choice is prior to preference on epistemic grounds: the only way an external observer can claim that a person prefers an apple to an orange at a particular time is by observing their choice of an apple over an orange.

When it comes to the actual logical relationship between preference and choice, however, it is rather less clear what precisely Mises thought. His notion of a "value scale" seems to imply that there exists an ordinal preference function which underlies and gives rise to choice. While insisting that preferences had no cardinal magnitude and were therefore not amenable to arithmetic manipulation, his theoretical system endowed each individual with an ordinal ranking of all options from most to least desirable. This is, in effect, very close to the indifference curve understanding of preferences within contemporary neoclassical economics. While Mises insists that the value scale is a mere abstraction to make sense of choice, it is difficult to see how such a scale could be revealed through action. The notion of a value scale, as Barnett and Block (2009) point out, is inconsistent with his

principle of singularism – that we can only make one choice in any situation and therefore that we can only observe a preference for the chosen course of action over those foregone. While the relative orientation of any two goods on the value scale could potentially be revealed by choice, it is logically impossible to rank options more than two-deep. If we give an individual a choice between an apple, an orange, and a banana, his choice of an apple demonstrates that he prefers the apple to either the orange or the banana at that time under those circumstances. This allows us to say nothing about his relative valuation of the orange and banana, however, and offering him another choice creates an entirely distinct choice situation, allowing us to say something else about his preferences but not to combine this information into a grand scale revealed through multiple choices. This inconsistency leads one to suspect that Mises saw the value scale as logically prior to choice, even though the economist as scientist has to proceed as if the reverse were true.

While a belief in unobservable value scales makes little practical difference in Mises's deductive Praxeology, it makes quite a difference to those who would take Misesian insights while engaging in non-deductive inference. If there really were some value scale underlying choice, the inductively-inclined social scientist could, while remaining epistemically humble, attempt to approximate it. This approximation is bound to be imperfect but could nevertheless provide a useful guide to policymaking. I will argue that there is no such thing as a value-scale underlying choice and that preferences themselves are an abstraction derived from choice. Choice does not *reveal* individual preferences to external observers but *creates* a preference in the chooser himself.

4.3. THE IMPOSSIBILITY OF WELFARE ECONOMICS

4.3.1. The Context of Choice

The decisions we actually reach when weighing competing values are determined by a number of factors, not all of which are deemed relevant by rational choice theory. The standard view of choice in economics – and one which is required if welfare economics is to make any sense – holds that individuals are able to ordinally rank preferences from most to least desirable and that these

preferences should not depend on normatively irrelevant contextual factors such as the framing of the question, method of elicitation, or mood at the time of choice (von Neumann and Morgenstern 1964).

In reality, this does not seem to be the case. Emotions seem to play a significant role in decision-making, and two central tenets of rational choice theory, preference transitivity and procedural invariance, seem to be invalidated by a large literature in psychology and behavioural economics (Tversky & Kahneman 1986: 253-254). Background moods can affect our decisions, as can seemingly irrelevant aspects of the problem frame.

4.3.2. Emotion

A number of studies have shown that emotions have a significant role to play in decision-making (Damasio 1994; Bechara et al 1994; Shiv & Fedorikhin 1999; Bechara et al 2000; Sanfey et al 2003; Loewenstein et al 2001; Loewenstein & Lerner 2003; Bechara 2004; De Martino et al 2006). Our mood at the particular time of choice, for example, can affect the outcome of our deliberations. In some cases, this can be because we are facing a distinct choice: I might prefer beer to whiskey when feeling hot but whiskey to beer when feeling cold.[52] The effect of mood on choices goes much deeper than this, however. Even decisions which only affect us at future times when we can be confident our fleeting emotional state has passed are shaped by our current mood (Deldin & Levin 1986; Forgas 1989, 1991, 1995; Nygren et al 1996; Raghunathan & Pham 1999; Hockey et al 2000; Yuen & Lee 2003).

The effect of emotion on decision-making should not be seen as a perversion of rationality but as a crucial component of real-world choice. The "somatic marker hypothesis" developed by Damasio (1994; Bechara & Damasio 2005) holds that human cognitive processes are by themselves incapable of producing wise decisions and that affective states contain information crucial for choice. Support for this hypothesis comes from both from numerous studies implicating emotional regions of the brain

[52] Such effects could be understood economically as changes in the budget constraint rather than the preference function. Environmental heat is a good we are forced to consume, and may exhibit complementarities with other goods we can choose to consume, such as beer. Hot weather changes the bundle of goods we have no choice but to consume, and so it would be rational, even with a stable and well-behaved preference function, to alter our consumption decisions accordingly.

in decision-making (Bechara et al 2000) and the fact that individuals with normal cognitive function but damage to emotional centres of the brain seem to choose poorly. In one case, a previously intelligent and well-adjusted individual, patient EVR, suffering from a brain tumour underwent surgery which removed part of his brain (the ventromedial frontal cortices) responsible for the processing of emotion (Eslinger & Damasio 1985; Damasio et al 1991). EVR retained a high level of cognitive intelligence following the surgery: with an IQ in the 130s, a good memory, and strong deductive and inductive reasoning ability. Despite this superior cognitive ability, EVR was incapable of operating in the real world following his surgery. By his own judgement, he began to make poor decisions and seemed incapable of setting priorities. He would fail to show up to his job, meaning that he could not hold one down, and would spend hours deliberating over choices of little consequence, such as what to wear or where to eat. The decisions he would eventually reach seemed random.

The effect has been demonstrated experimentally, though only with hypothetical choice. Bechara et al (1994) presented subjects with injuries similar to those of EVR and a control group with a learning task. Subjects were asked to choose between four decks of cards which gave both monetary rewards and punishments and were told to maximise their total payoff. Two of these decks contained cards with both higher rewards and punishments, and a lower net value, than the other. Despite being cognitively normal in most respects, the emotion-impaired group were less able to uncover the optimal strategy of choosing the low-reward, low-punishment decks.

If emotion does indeed play a significant positive role in choice, decision-making cannot proceed through calculative utility-maximisation, as implied by rational choice theory. Emotion is messy, indeterminate, and more sensitive to context than is computation. Emotionally-informed choice is unlikely to be algorithmic, and normatively-irrelevant environmental features are bound to influence the decision-making process (Bechara & Damasio 2005: 363-365).

4.3.3. Elicitation Method

The importance of context to choice is clearly demonstrated by the experimental literature around "preference reversals." The most striking studies of this type involve the reversal of preferences

among subjects asked to make the same choice under different methods: pairwise choice and monetary valuation. Rational choice theory would predict that the preferred option would garner a higher willingness to pay, since the method of elicitation is irrelevant to choice. Experimental results, however, suggest that this is not the case (Lichtenstein & Slovic 1971, 1973; Lindman 1971; Grether & Plott 1979; Mowen & Gentry 1980; Pommerehne et al 1982; Reilly 1982).

Slovic and Lichtenstein (1968) noted that choices between pairs of gambles were influenced more strongly by probabilities, while buying and selling prices for gambles were influenced more strongly by payoffs. They reasoned that it would possible to devise a pair of gambles for which the expressed monetary value would be higher for the least preferred gamble. This idea formed the basis of a well-replicated experiment three years later (Lichtenstein & Slovic 1971).

This study elicited both preference and willingness to pay for bets with a low probability but a high payoff ("$ bets") and a high probability but a low payoff ("P bets"). One of these bet pairs, for example, involved a 9/12 chance to win $1.20 and 3/12 to lose $0.10 (the P bet), against 3/12 to win $9.20 and 9/12 to lose $2.00 (the $ bet). The subjects were given the choice between a $ bet and a P bet, with identical, or nearly so, expected value. Following this, subjects were told they held the right to play each of these gambles and were asked to name their minimum selling price, using the incentive-compatible revelation technique of Becker et al (1964). Three experiments were conducted. In the first two of these, all choices and valuations were hypothetical, with no gambles being played and subjects simply being paid an hourly rate to participate. While results of this sort may be indicative of human psychology, they cannot be considered decisive. Hypothetical choices are thought experiments and, lacking consequences, are not decisions in an economic sense. The third experiment, though, involved real payoffs and is therefore more interesting from an economic perspective.

In this third experiment, fourteen male undergraduates were given six pairs of $ and P bets and asked to choose between them, with the same pairs being offered three times with options in varied order. The bets were to be run in points which were to be converted to cash at the end of the experiment, with possible winnings ranging from US$0.80 to US$8.00 – not inconsiderable for students in the

early 1970s. Subjects were then asked to state their selling price for each gamble. A clear majority of those choosing the P bet over the $ bet also gave the $ bet a higher monetary value: different methods of elicitation led to a reversed ranking of options.

To explain these results, we need to abandon or seriously modify the standard model of rational choice theory. Rather than having a well-defined set of dispositional preferences which are demonstrated in action, every choice is a constructive act. Different elicitation methods will bring different aspects of the problem into focus and produce different results. In the experiments described above, it seems that the dollar valuation of the bets brought the potential win into focus, making the probability of winning a less salient aspect of the decision. The binary choice, on the other hand, seemed dominated by the probability of winning. The monetary valuation of bets likely involves an anchoring at the level of the win and an (insufficient when compared to the binary choice) downward adjustment based on the probability of that win.

Understandably, a number of economists have sought to explain this result away as the result of insufficient monetary incentives or a failure to understand the problem on the part of subjects. The results have been replicated a number of times, however. Lichtenstein and Slovic (1973) had similar results on the floor of a Las Vegas casino, and a number of economists attempting to refute the hypothesis have upped the monetary incentives and gone to great lengths to ensure subjects understood the choices they were making – sometimes requiring subjects to take tests and providing the expected values of each bet. Preference reversal remained common (Grether & Plott 1979; Pommerehne et al 1982; Reilly 1982).

Other studies have claimed success in their attempts to undermine the results, though these either show a misunderstanding of the phenomenon, or limit the applicability of the results in ways which do not affect the argument presented here. Bohm (1994) attempted to replicate the conditions of previous experiments but in a more real-world context of the market for used cars. He bought two cheap cars to be auctioned off to students, with methods to elicit their willingness to pay and preference between the cars. One car was a reliable Volvo, which he reasoned was similar to the P bet, since it was not

able to provide a stunning driving experience but had a high probability of performing reasonably well. The other was the fancier but less reliable Opel, which represented the $ bet, since it would provide a more pleasant driving experience if things went well but was more likely to break down.

Bohm found no preference reversals in his study and concluded that the relevance of prior studies is restricted to laboratory experiments. The fact that Bohm found no reversals is not surprising, since none of the potential payoffs of the cars were expressed in monetary terms. Preference reversal happens because people take the payoff as an anchor when deciding on their valuations, since the stimulus and response are measured in the same units, it will receive a greater weight in decision-making. It is not the valuable payoff *per se* which leads to anchoring but a high payoff *expressed in the same units as the required response*. Evidence for scale compatibility as the driving factor in these preference reversals is provided by Tversky et al (1990). They show that preference reversals can occur due to scale compatibility in non-risky choices involving time preferences: subjects often preferred a lesser amount of money sooner but valued a higher amount later at a greater current monetary price.

Bohm and Lind (1993) examine preference reversals in real-world lotteries, finding some reversals but a lower proportion than in earlier studies. Again, this does nothing to undermine the results of earlier studies. Earlier studies were designed to elicit preference reversals, not to show that reversals are common in the wild but to show unambiguously that anchoring-and-adjustment effects are going on behind the scenes in all such decisions. Not every choice between $ and p bets will produce reversals. The fact that situations can be constructed to elicit reversals tells us about the psychology of choice, not the general choices people will in fact make. The idea is not that every time a P bet is preferred to a $ bet, we should expect the $ bet to receive a higher monetary valuation. Rather, $ bets are more heavily influenced by the monetary payoffs and that there is a certain range of payoff-probability space in which preferences will be reversed.

Preference reversal also seems to happen without scale compatibility issues when bundles of goods are compared individually or jointly. Hsee (1996, 1998; Hsee et al 1999) finds that undergraduates

hypothetically prefer inferior bundles of goods of higher average quality when asked to evaluate individually but will choose the superior bundle of lower average quality when asked to choose between the two.[53] List (2002) finds similar preference reversals in a field experiment at a sports card trading show. This involved real payoffs and a self-selected set of subjects who were actually interested in the goods being offered. This study is thus less subject to the complaints of external validity. List offered potential buyers two bundles of cards; one containing ten high-quality cards, and one containing ten high-quality and three low-quality cards. Again, the superior set of lower average quality was consistently preferred in pairwise choice but garnered lower willingness to pay in dollar terms.

The results described above should not necessarily lead us to expect rampant preference reversal in the wild. As Levitt and List (2007a, 2007b) argue, the environment of a laboratory experiments are quite different than those faced by humans in everyday life. To the extent that behaviour is elicited by the laboratory situation, experimental results are externally invalid. While this is undoubtedly true, it does not undermine the point I wish to make here. In fact, it strengthens it. Levitt and List stress the context of choice as an important factor in behaviour, which is also my point. Concerns about external validity should worry anyone wishing to use to the experiments described above to predict human behaviour. This is not what I wish to do. Even if we never saw this kind of preference reversal in the wild, the experiments still demonstrate that a well-ordered preference function does not exist independently of choice.

Subjects were making genuine choices in contexts designed to exploit peculiarities in their decision-making processes. This demonstration tells us something about the mechanisms underlying choice, rather than the choices people will actually make. I am here interested in the former. Showing that people do not have invariant preferences in this instance is enough to discredit a strict reading of rational choice theory.

[53] The bundles were two dinner sets; one with 24 high-quality pieces and one with 24 high-quality and 16 low-quality pieces.

4.3.4. Framing

Another factor deemed irrelevant by rational choice theory which seems to influence choice is the framing of problems (Tversky & Kahneman 1981, 1986). Tversky and Kahneman (1981: 453) define a decision frame as "the decision-maker's conception of the acts, outcomes, and contingencies associated with a particular choice," which is "controlled partly by the formulation of the problem and partly by the norms, habits, and personal characteristics of the decision-maker." Choices which are identical from a logical point of view can be framed in distinct ways, prompting the decision-maker to think about the problem differently and producing preference reversals between different descriptions of the same choice.

One type of such preference reversals can be explained by Kahneman and Tversky's (1979) prospect theory of decision-making under uncertainty. As an alternative to expected utility theory, prospect theory holds that risky choice involves two stages: editing and evaluation. Rather than considering the total effect on wellbeing, as in expected utility theory, the individual first frames the possible results of each option, applying values and weights, before evaluating the choice. Crucially, outcomes are understood as deviations from a neutral starting point, with positive and negative deviations treated differently. Kahneman and Tversky posit and S-shaped value-function which is convex below the starting point and concave above. This means that the difference in subjective value between two possibilities decreases as the absolute magnitude of the gain or loss pushes us away from the starting point: the difference between $1 and $2 is weighted more heavily than the difference between $11 and $12. This is true of both gains and losses, which makes people risk-averse with respect to gains but risk-loving with respect to losses. This is known as the reflection effect.

This asymmetry can produce preference reversals when the neutral reference point is altered, as has been shown in a number of experiments. A large majority of these studies involve hypothetical questions without payoffs and should be taken with a good dose of salt, for the reasons detailed above. Tversky and Kahneman (1981: 543), for example, asked subjects to imagine the outbreak of a deadly disease, expected to kill 600 people if no action is taken. Two responses were proposed, the framing

of which varied between groups. The first group were told that Program A would save 200 people with certainty, whereas Program B would save all 600 people with a probability of 1/3, and otherwise save nobody. The second group were instead told that if Program C were undertaken, 400 people would die with certainty, whereas Program D would result in no deaths with a probability of 1/3 and 600 deaths with a probability of 2/3. These two groups were given the same logical problem, differently framed. When the question was framed in terms of lives saved, 72 percent of subjects preferred Program A, the risk-averse option. When framed in terms of number of deaths, 78 percent preferred Program D, the risk-seeking option.

The extent to which these framing effects remain when people face monetary incentives is less certain than is the case with the elicitation method preference reversals described above. A few studies have found that monetary incentives do not remove the effects of positive/negative framing (Camerer 1989; Schoemaker 1990; Tversky & Kahneman 1992: 315-316; Kühberger et al 2002). Others, though, have found that they have reduced or disappeared (Laury and Holt 2005). Interestingly, Kühberger et al (2002) found that framing effects happen with real monetary incentives only when those incentives are non-trivial, reasoning that people almost always prefer to gamble with trivial amounts of money.

The evidence for prospect theory more generally, which implies the possibility of preference reversals based on positive/negative framing, is quite strong. Kachelmeier and Shehata (1992) find that risk preference is explicable from a prospect theory, rather than expected utility, perspective in the face of very strong incentives. By conducting their experiments with students in China, they were able to offer subjects a maximum payoff of three times their monthly income in a two-hour experiment. Camerer (2000) shows that prospect theory can explain a number of anomalies in financial, labour, and betting markets, though List (2004) shows that market experience can remove this effect.

It seems, then, that prospect theory holds up in the real world, at least some of the time. Again, the argument presented here does not require that framing can consistently reverse the preferences of individuals in their daily lives. The fact that the framing of choice can prove decisive in some situations shows that it is always a potential factor.

4.3.5. Irrelevant Alternatives

If we prefer X over Y when given a binary choice between them, rational choice theory tells us that we should continue to do so when a third option Z is introduced. The introduction of an extra alternative into a choice set can never increase the market share of another option under rational choice theory and will normally reduce it. This does not seem to always be true in reality. A number of studies have shown that irrelevant alternatives can have a significant influence on choice (Huber et al 1982; Huber & Puto 1983; Simonson 1989; Simonson & Tversky 1992; Tversky & Simonson 1993; Mishra et al 1993; Heath & Chatterjee 1995; Herne 1999). While most empirical evidence comes from hypothetical choice in the lab, the results have remained in the face of modest incentives (Simonson & Tversky 1992; Herne 1999) and there is anecdotal evidence from marketing that the effect holds in the field (Lynch et al 1991).

Adding irrelevant alternatives can affect choice in a number of ways. The "attraction effect," first documented by Huber et al (1982), involves the introduction of a third asymmetrically dominated option into a binary choice increasing the desirability of the option by which it is dominated. For example, Simonson and Tversky (1992) offered subjects the choice between a high-quality and attractive pen and $6. When they also offered a clearly inferior pen, the number choosing the high-quality pen over the cash significantly increased. Herne (1999) offered subjects the choice between gambles with identical expected values, which differed in terms of the amount and probability of payoff. The introduction of a third decoy option which was dominated by one but not the other of the original gambles – i.e. had either a lower payoff or probability without a compensating increase in the other attribute – significantly increased the proportion choosing the dominant alternative.

Another finding has been that people tend to avoid the most extreme options in a choice set and will therefore be more likely to choose a particular item if a third option which is more extreme on all dimensions is added (Huber & Puto 1983). Possible explanations for this effect include loss aversion generalised to product attributes and the need to create a compelling justification for choice (Simonson 1989; Tversky & Simonson 1993). Simon and Tversky (1992) asked subjects to

hypothetically choose which camera they would prefer to buy at given prices. The first group were given the choice between a relatively low-cost, low-quality camera and a high-cost, high-quality camera. The second group were also given the option of a third camera, which was of even higher price and quality. The introduction of this third option increased the market share of the second camera, which seemed was a compromise between the extremes of the other two. Herne (1999) found only weak support for this effect when using real incentives. Of the five choice sets she offered subjects, all produced preference reversals in the expected direction, though only two of these were statistically significant.

Like the other preference reversals discussed above, this is not consistent with rational choice theory. Clearly inferior alternatives should be ignored and have no influence on choice, and choice between two options should only be influenced by the attributes of those two options, not their position relative to other alternatives.

4.4. THE CONSTRUCTION OF PREFERENCE

The phenomena described above show that context influences choice. The fact that preferences can be reversed by manipulating the normatively-irrelevant features of the decision-making environment implies that individuals have no context-invariant set of preferences on which they base their choices. The implications of this for economic theory are profound. As Grether and Plott (1979: 623) put it:

> Taken at face value the data are simply inconsistent with preference theory and have broad implications about research priorities within economics. The inconsistency is deeper than the mere lack of transitivity or even stochastic transitivity. It suggests that no optimization principles of any sort lie behind even the simplest of human choices and that the uniformities in human choice behavior which lie behind market behavior may result from principles which are of a completely different sort from those generally accepted.

Choices do not simply reveal preferences but create them (Bettman et al 1998; Lichtenstein & Slovic 2006). The data, not to mention introspection and casual observation, are not consistent with the rational choice view that we have a well-behaved set of preferences which we can consult whenever we face a choice. Rather, humans rely on a variety of decision-making strategies, each of which will often produce different results (Tarter & Hoy 1998). The decision-making tools we use in any

situation will depend on a great many contextual factors, many of which rational choice theory deems inadmissible. We are biochemical machines and operate differently in different conditions.

This makes perfect sense from a biological point of view. Humans have evolved to produce behaviour and to make choices which maximise their reproductive success under resource constraints. The notion of bounded rationality (Simon 1955) tells us that rational decision-makers will not make fully rational decisions but will trade off rationality and decision-making costs. Similarly, even if it were possible for humans to have been equipped by evolution with well-behaved preference functions which would maximise reproductive success, the resource cost of such a design would have been prohibitive.

There does not seem to be any reason for privileging any of our myriad decision strategies above others, declaring it the Real Us. Most choices involve genuine tradeoffs on which reasonable men can disagree. If we metaphorically treat alternate decision strategies as little men inside our heads, it seems that reasonable homunculi can also disagree. This implies that there is simply no fact of the matter as to what a person prefers until they are put into a situation of choice. It makes no sense to speak of dispositional preferences, since what an individual prefers depends on a great many factors outside the skull. Human decision-making is always embodied and occurs in a rich environment which can trigger alternative choice processes. While standard rational choice theory holds that preferences exist independently of the context of choice, choice in a different context is a fundamentally different choice.

Of course, there are some things a person will reliably prefer under any realistic set of circumstances. With some exceptions, people will always choose pleasure over pain. Similarly, we might expect close to universal acceptance of an offer of a million dollars in exchange for enduring ten seconds of mild pain. This does not reduce the force of the central proposition that choice depends on context. These easy decisions still rely on context, though the conditions required to produce a different choice are extremely rare.

This theory of choice and preference seems highly counterintuitive at first. Given that humans imagine themselves as a unitary and indivisible Cartesian mind, a good deal of cognitive dissonance is bound to remain. Some elaboration on exactly what I am and am not saying might make the theory slightly more intuitive, however.

Caplan (1999) argues against the Austrian position on preference by pointing to introspection. We can subjectively feel that we have preferences, even if there is no possibility of revealing that preference through action. Caplan's argument is correct but his use of the word "preference" differs from my own and from mainstream Austrianism. Using Caplan's example, introspection can indeed tell him that he desires the subjective experience of ice cream and, should no other factors counteract this preference, that he prefers ice cream to its absence. What it does not tell us, though, is how much he wants ice cream relative to other things: how much money he would be willing to pay; how much pain he would be willing to endure; or how many statistical lives he would be willing to sacrifice in order to get an ice cream. Further, what he would be willing to give up would likely depend on the situation. If he were trying to minimise the calories he consumes, for example, he would have a genuine dilemma if offered an ice cream, and his choice might well depend on the rational-choice-irrelevant context. Seeing the ice cream might make him more likely to indulge, or he could be influenced by his mood. Caplan can introspect his *desires* in a situation divorced from choice but not his *preferences* in the sense of an ordinal ranking of all available alternatives. He can reliably introspect the fact that he likes something and even that he would very likely prefer that thing over some other good. This is not enough to save rational choice theory, however, which requires that we are able to place all goods in a coherent ordering independent of normatively-irrelevant contextual factors.

This rejection of rational choice theory does not imply that individuals are irrational, or even a-rational. Humans act purposively and aim at ends which will please them. But there are many things a person will find pleasing, and which he chooses to pursue will depend on a number of factors unrelated to the choice problem itself. Nor do we need to give up the idea of utility maximisation as a

useful fiction in positive economics. Assuming stable and coherent preferences allows us to make a great many predictions regarding human behaviour which have proved useful (Friedman 1953). Further, we should expect experienced market actors to behave as if they have a well-behaved set of preferences. Ariely et al (2003) provide evidence that people will respond to marginal changes in prices in a way consistent with rational choice theory even though the original valuations are arbitrary. We should thus expect to see coherent demand curves but at levels determined in part by an arbitrary initial framing.

When attempting to evaluate a policy or institution, however, the preferences and welfare of individuals are the very things we are interested in. If preferences and welfare are fundamentally different things from those posited by economic theory, any conclusions regarding them are likely to be nonsense. One cannot say anything interesting about an operational fiction.

The above analysis implies a complete rejection of utility theory as the basis for normative economics. An alternative explanation, which would require a significant overhaul of utility theory but not its rejection, is that individuals have welfare functions but only come to learn them with experience in particular decision-making tasks (Plott 1996). While the coherence of choice does seem to increase with market experience (Hoeffler & Ariely 1999; List 2002; Ariely et al 2003; Carlson & Bond 2006; Amir & Levav 2008), it seems unlikely that this is due to the uncovering of a pre-existing utility function. List's (2002) trading card study discussed in section 4.3.3., for example, found fewer preference reversals among professional card traders than others. The fact that a significant number of reversals remained among those with a very high degree of market experience is difficult to square with the idea of experience unearthing a procedure-invariant utility function. Further, it is not entirely clear how this could be so given a pluralistic conception of value. If competing values have no neutral basis for comparison, in what sense does an overall preference function make sense?

Given the tendency for preferences to solidify over time, though, it might be possible to take an "enlightened preference" view of welfare (Bartels 1996). Admitting that people make mistakes, we might extrapolate from the improvements in coherence with experience and posit a true welfare

function towards which revealed preferences gravitate. Indeed, it does seem reasonable to say that the performance of decision-makers improves as they gain experience. Preferences less dependent on normatively-irrelevant context make the decision-maker less susceptible to long-term losses due to the "money-pump" effect of preference intransitivity, for example. The relative coherence of preferences among experienced market actors, though, is entirely consistent with context-dependent arbitrariness. Ariely et al (2003) show that preferences will tend to consolidate with experience but still depend on initial anchors which should be irrelevant to choice.

Even if experience did completely remove the influence of context of choice, it would be unclear whether this would represent the discovery of a pre-existing utility function or the construction of a coherent one. Weber and Johnson (2006) argue that preferences are often constructed from memory, with past experiences and choices leading to a solidification of preferences over time. Similarly, the somatic marker literature discussed in section 4.3.2. suggests that the emotional cues which inform choice will become stronger as a stimulus is repeatedly encountered, leading to increasingly stable preferences.

4.5. IMPLICATIONS FOR WELFARE ECONOMICS

While many have accepted the results of these studies and their implications for positive economic theory, there has been a lack of appreciation of the full normative impact of constructed preferences. While the problems posed to contingent valuation, which are of an epistemic nature, have been thoroughly discussed (Gregory et al 1993; Irwin et al 1993; Kahneman et al 1999; Hsee & Rottenstreich 2004), the implications for normative economics generally are profound.

Many psychologists and behavioural economists will, in light of findings such as those described above, conclude that humans do not know what they want and are therefore irrational. Schumpeter's (1954: 1058) claim that rational choice theory provides a useful normative model of choice but an inadequate account of human psychology is often favourably quoted, and the conclusion is made that people *should* aim at maximising welfare but fail to do so in reality. This is clearly the case in Cass Sunstein and Richard Thaler's work on "libertarian paternalism" (Sunstein & Thaler 2003; Thaler &

Sunstein 2003, 2008). They argue that individuals' preferences are often ill-defined and malleable by the context of choice and that therefore benevolent "choice architects" should shape the context in order to encourage people to make the right choices. This is based on a fundamentally mistaken view of preference and welfare. Thaler and Sunstein are quite willing to give up a well-behaved preference function logically prior to choice but wish to retain an equally abstract welfare function. This position requires an ethical monism which, I will argue, is entirely indefensible. If individuals do not have a unique preference function, neither do they have a unique welfare function.

If value were unidimensional, preference reversal would straightforwardly show that humans are irrational in certain predictable contexts. If it were best for all people that they maximised physical pleasure (which would presumably need to be defined biochemically) with rates of time and risk preference constant across individuals, for example, it would be theoretically possible to identify the optimal choice for any individual and declare all others inferior. Of course, this is simply not a good description of the normative universe. Humans value many things – pleasure, self-actualisation, and excitement, for example – and these will normally be incommensurable (Berlin 1969, 1991; Galston 2002, 2005; Raz 1997; Chang 1997). Even most hedonists do not have a moral theory adequately simple to attribute a unique and well-behaved welfare function to each individual. Adding variable risk and time preference to physical pleasure is enough to complicate matters sufficiently to thwart the impartial judgement of individual welfare.

We routinely experience situations in which we must trade off one value for another. We face choices between career and family; short-term pleasure and long-term health; virtue and wealth. None of these cases involve a maximisation problem, as monists are bound to say they do, but the trading off of distinct values with no natural basis for comparison. The difficulty of such choices does not derive from their calculative complexity, as a difficult financial decision might, but from the indeterminacy of the problem.

Not only, as Grether and Plott (1979: 623) argue, are there "no optimization principles of any sort ... behind even the simplest of human choices." Such optimisation would be impossible, since there is

nothing for us to optimise. Self-actualisation, comfort, pleasure, excitement, and a sense of community have no common denominator or exchange rate. When we make tradeoffs among these goods, we are not maximising the higher-order good of utility. Rather, we are pursuing our various and conflicting goals in ways of which we approve, with the level of approval depending on the environment in which we make our choice. Utility maximisation does not deserve even the aspirational value Schumpeter attributes it, since ought implies can and humans simply have no utility function to maximise. Utility theory, then, cannot provide the normative basis for welfare economics. It is difficult to overstate the implications of this view for normative policy analysis and comparative institutional analysis.

The implications can be clearly seen when we consider cost-benefit analysis (CBA). CBA, which is a crucial part of policy analysis as it is practised today, involves reducing all costs and benefits of some particular action or policy to dollar values based on the subjective valuation of individuals. A cost-benefit analysis might be conducted on whether to allow a factory to open in a small town, for example. This factory will presumably impose both costs and benefits on local residents. The smoke emitted from a factory could harm neighbours by preventing them from hanging washing outside and making their environment generally less pleasant, but the increased employment in the region might increase material standards of living. A CBA would estimate how much neighbours would be willing to pay (or accept) to avoid smoke from the factory. This would be placed on the cost side of a ledger, to be balanced against any offsetting benefits. When all benefits and costs have been estimated, the moral question reduces to simple arithmetic. Of course, CBA practitioners are often aware of the epistemic problems of estimating willingness to pay in the absence of market transactions but are generally content to state that a rough estimate of cost and benefit is better than no estimate at all. The argument of this chapter, however, suggests that costs and benefits *have* no definite magnitude when abstracted from choice. Estimating an nonexistent quantity is, of course, impossible.

This is not to say that normative analysis cannot be performed rigorously using the insights of positive economic theory. We can reasonably argue about how much weight various interests should be given

in public policy. What we cannot do is to reduce all such interests to a single metric and come up with one correct answer to normative questions involving competing values. Reaching hard conclusions about normative questions masks numerous value judgements as value-free science.

While many economists do recognise that value judgements are an inescapable part of welfare economics, attempts to make these judgements transparent while retaining the core methodology of welfare economics are generally unhelpful. Following Samuelson (1947) and Bergson (1938), many specify a particular social welfare function, admitting that others can be equally valid, and use positive economics to discover which policies will maximise this welfare function. Effectively, this approach involves importing independently-derived normative premises into positive economic arguments. The problem with this approach is that the number of plausible social welfare functions is unbounded and depends on the framing and symbolic value of each outcome. It is certainly possible for an individual to state their values explicitly and perform a positive analysis which spits out an optimum course of action given those values, but it is unclear why anyone else should listen to him.

Rather than importing normative conclusions into positive analysis, a better approach would be to import positive conclusions into normative arguments. It is far easier to reach a defensible position on how the world works than it is to agree on a common set of values, especially in the presence of constructed preferences. There is simply no neutral basis for deciding between competing values, and any attempt to provide a correct answer to moral problems is failing to engage with the normative richness of the world.

The implications for robust political economy and comparative institutional analysis should be clear: not only is the normative evaluation of alternative institutional arrangements extremely complicated but also significantly subjective and open to disagreement. What we consider the worst case depends on our values and the context in which we consider the alternatives.

4.6. CONCLUSION

The rational choice view of human decision-making is empirically and theoretically indefensible. The social scientist's tendency to treat choice situations as reducible to simple optimisation problems leads to a false sense of normative tractability. In fact, humans pursue multiple goals simultaneously, and the priority of these goals can vary based on countless contextual factors.

This does not tell us that humans are irrational or that liberty is not of instrumental value in the satisfaction of preferences. While the case for freedom of choice is often made on utilitarian grounds, other justifications are possible. We still strive to fulfil our plans and desires, albeit without a unique optimum in mind, and our own choices are likely to produce results more satisfying to us than are the choices of others. Further, the ability to freely choose our actions is itself valued by people. We resent control and will seldom be happy unless left to make our own choices (Mill 1859; Veenhoven 2003). The act of choice also seems to increase the perceived desirability of the chosen option (Mather et al 2000, 2003), meaning that the frustration of choice will lead to less satisfaction even when our homunculi disagree on the best course of action. The consequentialist case for freedom can stand without a context-independent preference function; the utilitarian approach to normative institutional analysis cannot.

A typical comparison of two institutions will specify some basis for normative evaluation, perform a positive analysis, and declare one institution the winner. This is satisfying: everybody likes certainty, and nobody likes a fence-sitter. The horrible truth about comparative institutional analysis, though, is that definitive answers are impossible. Many things are valuable, and any attempt to reduce them to a single good is bound to be arbitrary. Individuals always make their choices while embedded in a rich environment. This environment influences our choices, and preferences never exist in a vacuum.

Those wishing to compare institutions must deal with this uncomfortable fact and attempt to evaluate outcomes non-algorithmically. If there were a genuine tradeoff between liberty and security, this could not be reduced through value-free science to a simple maximisation problem. Different people have different values and the robust political economist can thus never specify the worst case once-

and-for-all. While simplifying assumptions which do not reflect the richness of the real world are valuable aids to our understanding, they become problematic when we are trying to evaluate two real-world institutional alternatives. Social science can only ever be the first step in the evaluation of any institution or policy. The conclusions of social science, with recognition of its fallibility, must form the premises of moral arguments about policy.

Chapter Five

Conclusion

5.1. INTRODUCTION

The chapters of this thesis, along with Crampton and Farrant (2006, 2008) and Taylor and Crampton (2009), have shown that a robust political economy and normative social science more generally is complicated and indeterminate. We need to consider a myriad of factors, as well as the interactions and feedback loops among them, while admitting that institutional alternatives will often be normatively ambiguous.

Crampton and Farrant (2006, 2008) show that we need to consider the interactions between independent variables when conducting robustness analysis. While planner ignorance and self-interest are both undesirable in isolation, self-interested rulers become less harmful as ignorance increases.

Taylor and Crampton (2009) show that even when considering what seems at first to be a single dependent and single independent variable, the specifics of the independent variable can have a huge effect on the results. Analysing the effect of meddlesome preferences on the negative freedom enjoyed by individuals under market anarchy and democracy, they show that neither can be said to be more robust to meddlesome preferences than the other. Rather, widely-held meddlesome preferences are more harmful under democracy, while concentrated meddlesome preferences are more harmful under anarchy.

Chapter two, which dealt with the effect of enumerated constitutional rights, showed that deviations from ideal conditions need not lead to linear degradations in the outcome of interest. The constitutional prohibition of censorship seemed to have little effect when conditions were relatively good, offering protection of freedom of the press only past some threshold of general illiberalism.

Chapter three offers an example of the tradeoffs involved in institutional choice. While structural barriers to policy change which increase the size of the minimum winning coalition clearly protect

liberty in some instances by reducing the chance that a zealous majority will be able to force its views on a minority, they will also tend to protract periods of bad policy which often accompany a crisis.

Chapter four showed that these tradeoffs cannot, even in principle, be made scientifically on welfarist grounds. To speak of preferences and utility in the abstract is nonsensical, since the competition between mutually exclusive values can only be adjudicated by real, embodied people existing in a real environment which is never entirely orderly.

While Hayek, Brennan and Buchanan, Levy, and the other founders of robust political economy have given us a powerful tool to evaluate political institutions, the standard approach requires complication in order to prove as useful as possible. I have already suggested that we need to consider multiple dependent and independent variables, and even then we are not justified in declaring the normative Truth. In this conclusion, I will use the results of the preceding chapter to suggest that we also need to evaluate alternative institutions under multiple states of the world. Brennan and Buchanan's analysis of quasi-risk aversion seems to imply that one appropriate set of assumptions regarding the state of the world exists for institutional choice, which can be discovered by considering the degree of convexity as well as the empirical likelihood of various states of the world.

Given that political questions cannot be answered conclusively and require the consideration of multiple perspectives, policy analysis must be a social process. The interests of various groups need to be considered, and a compromise among competing values needs to be reached. This requires institutions which encourage dialogue, debate, and negotiation. The institution of large-scale democracy is not suited to this task, since it is dominated by expressive voting and symbolic signalling. Genuine deliberative policy-making would be advanced by decentralizing decision-making power to the smallest feasible political unit.

5.2. MULTIPLE ASSUMPTIONS

There are three broad reasons that the robust political economist needs to consider multiple states of the world when evaluating institutions or policies: the empirically most likely state of the world is

seldom certain; the world can change in ways which void prior analyses; and reasonable people can disagree on what constitutes the worst case.

5.2.1. Uncertainty

Social-scientific analysis will often produce incorrect conclusions, even when based on sound principles of reasoning. Economic theory told us that lighthouses could not be produced privately, whereas Ronald Coase (1974) showed that they had been in reality.[54] The problem is not simply that the economic theory which produced this conclusion was mistaken but that the constructivist social scientist can never foresee all the creative solutions ecologically rational agents can devise in order to solve social problems. Theory is no substitute for social experimentation (Hayek 1973; Smith 2003, 2008).

Society is a complex system in which the interaction of individuals with diverse goals and capacities produce an emergent result no participant intends nor fully understands (Hayek 1945; Schelling 1978). Subtle changes at the individual level can have profound impacts at the social level, and there will often be significant uncertainty as to which model of the world actually reflects reality. If there are multiple possibilities, it would be sensible to consider alternative institutions under each set of assumptions and make a holistic evaluation of their merits. Many of the assumptions we should be thinking about are multifaceted and subject to Knightian uncertainty (Knight 1921), making it impossible to come up with any sort of weighted average of harm as Brennan and Buchanan do with respect to the knavishness of the monopolist.

More fundamentally, the available data will always allow multiple interpretations of reality (Hume 1748: Section 4; Duhem 1954; Quine 1951, 1975). Given the unbounded nature of theoretical possibility-space, every theory will be empirically equivalent to, but logically inconsistent with, another (Quine 1975). Further, empirical tests can never be performed on a single hypothesis, since it

[54] Some have questioned Coase's analysis, however. Van Zandt (1993) and Bertrand (2006) argue that government did in fact play a significant role in lighthouse provision. A number of other goods for which private provision would be deemed impossible by public goods theory seem to have been produced by markets, however, including radio and television broadcasts (Holcombe 2000:277-279), policing, highways (Benson 1994), and prisons (D'Amico, forthcoming).

is the entire theoretical edifice which jointly makes observational predictions. As such, adverse observations can always be made consistent with any hypothesis by modifying surrounding hypotheses (Duhem 1954). This uncertainty and holism makes scientific knowledge much less certain and suggests that the robust political economist should evaluate institutions under multiple states of the world whenever a high degree of uncertainty can be expected. The sheer complexity of social interaction makes the limits of human knowledge particularly pronounced in the social realm (Hayek 1952).

5.2.2. Change

Closely related to the problem of uncertainty is that of change. Even if we are confident that our positive analysis is correct presently, the world can change in ways which void our prior analyses. Societies, economies, and cultures evolve over time in directions often unpredictable and path-dependent (North 1990, 2005; Nelson & Winter 1982; David 1985; Arthur 1989; Pierson 2000).

The outcome of arguments over whether voluntary institutions or government will best provide a particular service, for example, often depend on the current state of technology. The essays in Foldvary and Klein (2003) demonstrate that in several policy areas, technology has undermined previous policy rationales: RFID technology allows us to operate toll booths on roads more conveniently, bolstering the case for privatisation; information technology undermines the informational case for safety regulation; and the advertising-avoidance technologies of the internet and TiVo go some way towards undermining the solution broadcasters found to the non-excludability problem.

Given that institutions, and especially constitutional rules, are meant to last for long periods of time, it would be wise for political economists to consider the possibility that the world will change in relevant ways and factor this into their policy recommendations.

5.2.3. What is the Worst Case?

The pioneers of robust political economy treat the worst-case set of assumptions as visible at first glance. While it is unreasonable to expect early expositional analyses to lay out the processes of a new approach in full, this is something we need to do if we are to make practical use of robust political economy for institutional choice. If the worst case is to be judged in terms of outcomes, it will often not be obvious which case is, in fact, the worst until we perform the analysis. Should we be more fearful of knaves or misguided altruists? Brennan and Buchanan (1983: 103-104) point out that the zealot is more fearsome than the knave, but both zealotry and knavery come in multiple flavours.

Which case really is the worst is seldom obvious and will likely depend on the particular institution we are considering (Taylor & Crampton 2009). If we take the now well-accepted public choice view that people behave more rationally and seek more information in the marketplace than in the voting booth, it is plausible that self-interest will be preferable to altruism in situations of democratic totalism, while altruism will be preferable to self-interest in a liberal market society. If this is so, there is no single worst case set of assumptions relevant to both institutions. Further complicating matters is the fact that we need to consider the interactions among independent variables. The normative implications of certain factors can be altered or reversed when other factors are in play (Crampton & Farrant 2006, 2008).

Even after overcoming these problems of complexity, the problem of value pluralism remains. There are many possible dystopias and the subjective weight we put on various values will determine which is worse. This means that any serious robustness analysis will likely have to consider multiple cases as plausible candidates for the worst.

5.2.4. Implications

To deal with the limits of human knowledge, the dynamic nature of the world, and the slipperiness of normative judgement, comparative institutional analysis needs to become more complicated. Instead of choosing a single metric of goodness, a single factor which can affect that metric, and a single

model of how the world works, we need to admit that there are multiple dependent and independent variables and models of the world which deserve our attention. The weight we put on each of these variables and models depends on a number of factors, many of which are subject to reasonable disagreement. As such, no scientific answer can be reached on normative questions. Social science cannot simply turn the crank of objective analysis and produce an evaluation of the best set of institutions.

5.3. NON-ALGORITHMIC INSTITUTIONAL ANALYSIS

My advice for those undertaking comparative institutional analysis is similar to Brennan and Buchanan's in its rejection of the best empirical guess at how the world works as the sole basis for normative evaluation. It differs from standard robust political economy, however, by suggesting that institutions should be evaluated not under any single assumed state of the world but under multiple sets of assumptions. It also differs in its normative view of institutional outcomes: instead of taking a simple view of social welfare as a single metric, it takes a 'vector' view of desirability (Sen 1980). This will necessarily make comparative institutional more complicated and less deterministic: institutional analysis will seldom produce one obviously correct answer. It will, though, provide a richer framework for considering the unavoidable tradeoffs of institutional choice.

We cannot simply say that one institution is more robust than another but must formulate causal hypotheses under certain assumptions which can then be considered from a moral point of view. Comparative institutional analysis, then, can only say things like "the value *V* is more robust to change *X* in state of the world *T* under institution *A* than under institution *B*, given theoretical assumptions *P*."

This is obviously more difficult than saying "institution *A* is more robust than institution *B*," but coming to terms with the complexity of the social world, the uncertainty of our understandings of it, and the heterogeneity of moral judgement is an inherently difficult undertaking. We should make our analyses as simple as possible but no simpler. The standard approach to normative social science has been so simple as to rule out the possibility of compelling answers. Making such restricted statements

never allows the social scientist, *qua* social scientist, to make a final judgement as to institutional desirability, no matter how many such statements we formulate. Instead, as is argued in chapter four, such statements need to form the premises of moral arguments.

Moral arguments are never likely to produce hard conclusions. Any conclusions reached must be subject to revision and cannot be based on the false authority of value-free science. Since every individual comes with their own idiosyncratic moral intuitions and commitments, institutional evaluation must be a social process. If people were responsive to reasons and willing to compromise, there would be hope for an acceptable synthesis of competing values and agreement on which institutions are most reasonable.

5.4. NON-ALGORITHMIC INSTITUTIONAL ANALYSIS AND DELIBERATIVE DEMOCRACY

The above discussion asks how we *should* evaluate alternative institutions or policies if we wish to give well-reasoned advice. The question of whether such a process *will* ever be used to inform policy-making is entirely separate. Political economists can engage in such policy analysis until they are blue in the face, with politicians ignoring their advice and carrying on with business as usual. The advice of cost-benefit analysis is today routinely ignored when it conflicts with pre-existing political goals, despite the fact that it is widely accepted.

If my advice for policy analysts is to be used as a basis for policymaking, it would require some sort of deliberative democracy (Bessette 1980; Elster 1998). This, of course, requires truth-seekers willing to obey the rules of public reason (Kant 1784; Rawls 2005), which brings us to a second-order robustness problem: my proposed procedure for institutional analysis will only work to produce reasonable policy if political actors behave reasonably.[55] There is good reason to think this will not be the case in the large-scale nation states which dominate the political landscape today. Voters in large polities do not have an incentive to think rationally about policy and will use politics as a means of expressing themselves, signalling loyalty, and promoting their own vision of the good life (Gusfield

[55] Of course, it is not clear whether it would do any worse on this count than the status quo.

1963; Edelman 1964, 1971; Brennan & Lomasky 1993; Caplan 2007). Further, the group dynamics discussed in chapter three imply that deliberative democracy is likely to promote groupthink and extremism (Sunstein 2000).

It is unclear, however, how we can improve this state of affairs in large-scale democracies. We are bound to be stuck with the problems of expressive politics, regardless of the procedures for institutional analysis we propose. Indeed, the procedures by which decisions are reached emerge from political institutions, and we therefore need to think about what institutions promote reasonableness in debate and a willingness to compromise. In Fung's (2002) words, we need institutions which create capable deliberative publics. A capable deliberative public is a public good: a well-adjusted polity will benefit everyone, regardless of whether they contribute to it. This is clearly not a public good which can be provided by central government, however, since it is impossible to extract resources from the masses to pay for its production. If there is hope for deliberative democracy, it lies with small-scale community governance.

The Bloomington school of political economy has shown that when left to voluntarily cooperate, individuals in small groups will strive to produce creative solutions to collective action problems (Aligica & Boettke 2009). Ostrom (1990) shows that the problem of overuse of common pool resources can often be solved through non-state, non-market governance mechanisms which rely on trust, reciprocity, and compromise. The conclusion of economic science regarding the "tragedy of the commons" (Hardin 1968) that common pool resources need to be either regulated by government or privatised turns out to be empirically false. Not only are voluntary solutions to such collective action problems possible, they turn out to perform more effectively than central control. Taking the case of irrigation networks in Nepal, for example, it seems that farmers managing production and access among themselves have more water available, enjoy higher levels of land productivity, and keep the irrigation system in better physical condition (Lam 1998; Joshi et al 2000).

This should not be surprising. Humans evolved to interact in small groups, and cooperation on the scale of the modern state is entirely alien to human sensibilities. Cooperation at a community level

occurs among people with shared norms, a group identity, and a history of past interaction. A number of laboratory experiments have shown that cooperation in collective action problems is more likely when subjects interact face-to-face (Ostrom 1998), have previously interacted (Oskamp & Perlman 1965), and perceive themselves as a group (Dawes et al 1988). The creation of a capable deliberative public involves a collective action problem likely to be solved more effectively through community-level governance.

The concrete rules which govern such systems are highly diverse – sometimes relying on formal punishments, other times on reputation and informal monitoring (Ostrom 2005). The important point is that they have developed from the ground up in ways sensitive to local constraints and opportunities. Small groups in which each participant has a significant, long-term stake in outcomes are more likely to reach reasonable decisions than central bureaucracies elected by large groups with nothing riding on their expressed wishes. It often becomes unclear whether cooperative groups should be thought of as governments or voluntary institutions. Home-owners' associations, for example, approximate many features of local governments. The distinction between government and civil society is not clear-cut at a local level and is in any case rather irrelevant (Nelson 2005).

Not all collective action problems can be solved at a local level, however. When externalities reach far and wide, community governance will not be effective. It is clear that community regimes can do nothing about climate change, for example. This leads to another important contribution of the Bloomington school: polycentric governance (Ostrom et al 1961; McGinnis 1999).[56] Whereas a monocentric system of governance involves one centre of power, which may or may not delegate certain responsibilities to lower level, polycentric systems involve many centres of power. This differs from simple jurisdictional competition as envisaged by Tiebout (1956) in that jurisdictions will depend on the services being produced and will normally overlap. Ostrom and Ostrom (1999) insist that decision-making power to solve a collective action problem must be vested as closely as possible with the group which stands to gain from its solution; the "production unit" must match the

[56] Frey and Eichenberger (1996) develop a similar model of governance.

"collective consumption unit." The consumption of national defence and clean streets, for example, occur at very different levels, and it makes little sense to have decisions made about them at the same level of governance.

If people are able to pick and choose among competing governance service-providers, they will tend to settle on those which best meet their needs. When small-scale governance is possible, it will tend to flourish. In addition to directly augmenting the power of voice by decreasing the size of the decision-making unit, thereby increasing incentives and decreasing transaction costs, the power of exit may lead to an indirect increase in voice. When decision-makers face the possibility of having customers or citizens leave, they face the incentive to take their wishes seriously and attempt a compromise between competing interests. Supporting this view, Mintrom (2003) finds that charter schools in Michigan, which are subject to market competition, give a greater voice to parents than do public schools.

While polycentric governance is not capable of solving collective action problems perfectly, and in any case will only offer improvements to those goods for which the collective consumption unit is smaller than the current production unit, it does have the potential to increase meaningful dialogue and compromise. Breaking down the boundaries of existing polities would allow experimentation and create a market for governance. This would provide incentives for the creation of institutions which solve the problems of expressive politics and replace political conflict with meaningful conflict resolution.[57]

5.5. CONCLUSION

The central theme of this thesis has been that we, as political economists, need to give up our convenient illusions. Broadly speaking, these illusions can be divided into those of certainty and of security.

[57] Of course, I cannot say that such an approach is better in any scientific sense, since there are certainly arguments pointing in the other direction. I am merely making an argument which must be weighed along with all others.

Our simplistic moral theories and pretence of scientific certainty have given us an illusion of certainty. Harry Truman's impassioned plea for a one-handed economist fits the human desire for clear and simple answers but conflicts with the way the world works. Our positive conclusions are always subject to revision, and no normative implications ever emerge from political economy without the injection of subjective moral judgements.

The tendency for economists and policy analysts to present normative conclusions as scientifically-discovered fact is not surprising. Such misleading appeals to authority suit the political needs of policymakers, and the one-handed economist is likely to garner more public attention. A complete analysis of any public policy or institution, however, would require an infinite number of hands. Since no such analysis can ever be made, we need to rely on the social aspect of science to improve public decision-making, while admitting that such improvement is not a process of optimization.

We also need to abandon our illusion of security. Buchanan and other constitutionalists tend to see constitutions as binding rules which constrain governors absolutely. This is clearly not the case and leads to a false sense of security. Perhaps the most transparent example of this tendency comes from followers of Ayn Rand, whose insistence on the need for government to enforce "objective law" is wildly utopian (Binswanger 1992). While criticising anarchy as inevitably leading to gang warfare, they hope for a government which will enforce only just laws aimed at protecting individual liberty. Public choice theory tells us that this is not how any government is likely to behave, and the objectivists offer no means of constraining government other than the glittering generalities of constitutionalism.

While the objectivists might turn out to be correct that anarchy will descend into violence, it is also true that government can follow a similar trajectory. As Demsetz (1969) so eloquently tells us, we need to avoid idealising any institution and treat all on an equal basis. Robust political economy cannot guarantee that things will not get really bad, since it is unlikely that any institution will be robust to extremely unfavourable conditions. Both anarchy and democracy could lead to the emergence of a highly predatory *de facto* state, for example. Cowen and Sutter's (2005) vision of

cartelization in anarchy might turn out to be true, but it is not clear whether such a situation is any worse than despotic governments emerging from democracies, such as Robert Mugabe's Zimbabwe. When informal institutions are poor, neither anarchy nor democracy is likely to produce a tolerable standard of life (Leeson 2007; Powell et al 2008). There is no way of avoiding the worst case with certainty. Further, in the very worst case institutions might not matter at all, since rules will often break down in times of emergency.

A robust institution should not simply be seen as one which avoids the worst possible outcomes but one which performs well in a variety of conditions, as well as under a variety of normative stances and descriptive theories of the world. Assessing robustness can never be an algorithmic process but must involve a holistic judgment of costs and benefits. Analysis of this sort will not be easy but is the only way of truly facing the complexity of the real world.

Appendix One

Description of Variables for Chapter Two

Dataset at: http://bradtaylor.me/sites/default/files/bradtaylor.me/Taylor2009dataset.csv

countryname Name of country.

rsfindex 2008 Reporters Without Borders index of press freedom. (0-100; lower values indicate more freedom)

rsf_10 rsfindex broken into ten categories. (An rsfindex value between 0 and 10 is coded as 0; between 10 and 20 as 1, etc.)

rsf_20 rsfindex broken into twenty categories. (An rsfindex value between 0 and 5 is coded as 0; between 5 and 10 as 1, etc.)

rsf_round2 rsfindex rounded to nearest even number.

censor Does the constitution prohibit censorship. (0=no, 1=qualified; 2=absolue or qualified only by recourse for defamation) Based on content analysis of national constitutions.

press Does the constitution protect freedom of the press (0=no, 1=qualified; 2=absolue) Based on content analysis of national constitutions.

electoral The Economist Intelligence Units Democracy Index electoral process subscore (0-10; 10 most democratic) http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf

gdp CIA world factbook. PPP in 2008 US$, 2008 estimate

year_const Year of constitutional ratification according to CIA World Factbook.

age_const age of constitution (2008-yearconstitution – i.e. ignores month)

fh_electoral Freedom House (2008) electoral process subscore. (0-16; higher indicates more freedom, etc)

fh_plural Freedom House (2008) Political Pluralism and Participation subscore. (0-16; higher indicates more freedom, etc)

fh_function Freedom House (2008) functioning of government subscore. (0-16; higher indicates more freedom, etc)

fh_association Freedom House (2008) associational and organizational rights subscore. (0-16; higher indicates more freedom, etc)

fh_ruleoflaw Freedom House (2008) rule of law subscore. (0-16; higher indicates more freedom, etc)

fh_autonomy Freedom House (2008) personal autonomy and individual rights subscore. (0-16; higher indicates more freedom, etc)

wb_stability World Bank (2008) governance indicator - political stability. (Mean of 0, standard deviation of 1; higher values indicates better governance). **wb_stability_pos** = wb_stability+3, to make positive to allow for interaction.

wb_effective World Bank (2008) governance indicator - government effectiveness. (Mean of 0, standard deviation of 1; higher values indicates better governance). **wb_effective_pos** = wb_effective+3.

wb_regulatory World Bank (2008) governance indicator – regulatory quality. (Mean of 0, standard deviation of 1; higher values indicates better governance). **wb_regulatory_pos** = wb_regulatory+3.

wb_ruleoflaw World Bank (2008) governance indicator – rule of law. (Mean of 0, standard deviation of 1; higher values indicates better governance). **wb_ruleoflaw_pos** = wb_ruleoflaw+3.

wb_corruption World Bank (2008) governance indicator – control of corruption. Mean of 0, standard deviation of 1; higher values indicates better governance). **wb_corruprion_pos** = wb_corruption+3.

legalorigins_uk, legalorigins_fr, legalorigins_ge, legalorigins_sc, legalorigins_so Legal origins, British, French, German, Scandinavian, Socialist. Dummy 1=yes. From La Porta et al (2008).

plurality Plurality/majoritarian electoral system dummy. Mixed systems and countries without direct elections coded as 0. From Institute for Democracy and Electoral assistance classification (IDEA 2005).

jud_rev Judicial review. Following methodology of La Porta et al (2004), updated and expanded with information from Maddex (2008) and national constitutions. Expanded from Maddex (2008) and other sources.

rigid Constitutional rigidity. Following methodology of La Porta et al (2004), updated and expanded with information from Maddex (2008) and national constitutions.

system Parliamentary or presidential system. (2=parliamentary, 1=elected assembly president, 0-presidential) From Beck et al (2001).

bicameral Bicameral Legislature dummy from Johnson &Wallack (2007).

ethnic_frac Ethnic fractionalization. From Alesina et al (2003). (0-1; higher scores more fractionalized)

language_frac Linguistic fractionalization. From Alesina et al (2003). (0-1; higher scores more fractionalized)

religion_frac Religious fractionalization. From Alesina et al (2003). (0-1; higher scores more fractionalized)

latitude_abs Absolute average latitude, from CIA factbook [in base 10, i.e. degrees + (minutes/60)]

dictator Dictatorship dummy = 1 if type of government from Maddex (2008) is (non-constitutional) monarchy, dictatorship, theocratic republic, military government. If not listed in Maddex, =1 if

dictatorship, monarchy, emirate, communist state, military junta, theocratic republic, Islamic republic in CIA World factbook, (+ UAE).

injud Independence of the judiciary (0-2) for 2007 from Cingranelli and Richards (2008).

physint Physical integrity rights index for 2007 from Cingranelli and Richards (2008).

association Freedom of association for 2007 from Cingranelli and Richards (2008).

relfre Religious freedom for 2007 from Cingranelli and Richards (2008).

africa, latin_am, north_am, asia, europe, oceania Dummy variables for region, based on UN classification. Latin_am includes South America, Central America, and the Caribbean.

federal Federal system dummy, based on information from Maddex (2008) and the CIA World Factbook. (1 = federal or quasi-federal; 0 = unitary)

Interactions

Judicial jud_rev * injud – measure of effective judicial review.

censor_rigid, censor_judrev, **censor_judicial, press_rigid, press_judrev, press_judicial** Interactions between both constitutional variables (censor and press) and rigid, jud_rev, and judicial – to check if judicial review enforces parchment rules.

censor_ruleoflaw, press_ruleoflaw Interaction between both constitutional variables and wb_ruleoflaw_pos, to check if parchment matters when government respects law.

censor_effective, press_effective Interaction between both constitutional variables and wb_effective_pos, wb_regulatory_pos, wb_corruption_pos – to check effect of parchment in well-functioning vs poorly-functioning countries.

censor_assocation, censor_autonomy, censor_physint, censor_relfre, press_association, press_autonomy, press_physint, press_relfre Interaction between both constitutional variables and fh_association; fh_autonomy; physint; relfre - to check if parchment protects specific liberties when they would otherwise be restricted (assuming that governments wishing to crack down on freedom of association, etc would wish to crack down on freedom of the press).

censor_dict. Press_dict Interaction between both constitutional variables and dictator – to check if dictators respond differently to constitutional constraints.

Appendix Two

Full Regression Results for Chapter Two

Description	Variable	rsfindex	rsf_10	rsf_20	rsf_round 2
Constitution prohibits censorship	censor	-15.5285	-5.387236	-1.780159	-1.359787
		(0.001)***	(0.007)***	(0.185)	(0.325)
Constitution guarantees press freedom	press	-6.83121	1.846098	0.8447779	-1.826864
		(0.356)	(0.586)	(0.735)	(0.453)
Constitutional rigidity	rigid	-3.30466	-0.7575211	-0.4182322	-0.8389507
		(0.182)	(0.481)	(0.613)	(0.264)
Judicial review	jud_rev	-7.37067	-2.402487	-1.690257	-1.169442
		(0.019)**	(0.006)***	(0.058)*	(0.209)
Judicial independence	injud	-0.50702	-0.4550784	-0.2865044	-0.2970971
		(0.882)	(0.730)	(0.775)	(0.756)
Plurality electoral system	plurality	4.871623	1.959723	0.8239569	0.8995984
		(0.047)**	(0.009)***	(0.179)	(0.145)
Dictatorship	dictator	-10.4186	-3.603375	-2.149076	-1.704775
		(0.168)	(0.145)	(0.248)	(0.398)
Bicameral legislature	bicameral	1.944788	1.573275	1.180668	0.9624201
		(0.273)	(0.007)***	(0.040)**	(0.054)*
Parliamentary sytem	system	-3.10687	-1.245983	-1.038949	-1.146248
		(0.007)***	(0.014)**	(0.003)***	(0.000)***
GDP per capita	gdp	-0.00029	-0.0001093	-0.0000946	-0.0000937
		(0.002)***	(0.000)***	(0.000)***	(0.000)***
Age of constitution	age_const	0.040046	0.0120377	0.0127337	0.0099458
		(0.036)**	(0.462)	(0.079)*	(0.089)*
Physical integrity rights	physint	-4.05703	-1.338471	-0.9409542	-0.7826334
		(0.000)***	(0.000)***	(0.001)***	(0.009)***
Religious freedom	relfre	2.437531	1.103513	0.1049773	-0.0626403
		(0.417)	(0.302)	(0.923)	(0.950)
Functioning electoral process	electoral	-0.88718	-0.1702824	-0.1411834	-0.1031308

		(0.313)	(0.535)	(0.578)	(0.687)
Political pluralism and participation	fh_plural	-0.85318	-0.3932254	-0.244432	-0.2493416
		(0.238)	(0.020)**	(0.271)	(0.253)
Freedom of association	fh_association	-4.41792	-1.505901	-1.330055	-1.120331
		(0.000)***	(0.000)***	(0.000)***	(0.000)***
Personal autonomy and individual rights	fh_autonomy	1.54415	0.266203	0.2689515	0.2192176
		(0.053)*	(0.238)	(0.135)	(0.246)
Government effectiveness	wb_effective	9.650104	1.895988	1.805289	2.28316
		(0.028)**	(0.165)	(0.135)	(0.095)
Regulatory quality	wb_regulatory	-14.7851	-2.930087	-3.193759	-3.528185
		(0.000)***	(0.022)**	(0.010)**	(0.010)
Rule of law	wb_ruleoflaw	-8.0557	-2.619414	-2.13174	-2.010989
		(0.059)*	(0.066)*	(0.135)	(0.174)
Control of corruption	wb_corruption	14.42035	5.590959	4.353779	3.438491
		(0.001)***	(0.001)***	(0.002)***	(0.018)**
German legal origins	legalorigins_ge	3.517589	1.388722	1.332003	0.8025939
		(0.138)	(0.217)	(0.089)*	(0.183)
Ethnic fractionalization	ethnic_frac	-5.10693	-0.3444986	-1.572943	-2.295941
		(0.229)	(0.838)	(0.256)	(0.079)*
Religious fractionalization	religion_frac	-7.08831	-3.50846	-2.681207	-1.803548
		(0.117)	(0.020)**	(0.026)**	(0.120)
Absolute latitude	latitude_abs	-0.23689	-0.0899194	-0.1220052	-0.1092962
		(0.025)**	(0.001)***	(0.000)***	(0.000)***
In Africa	africa	-6.24832	-1.476395	-1.912415	-2.048965
		(0.058)*	(0.120)	(0.012)**	(0.012)**
In Latin America	latin_am	-6.6806	-2.076129	-3.071924	-3.344214
		(0.084)*	(0.119)	(0.052)*	(0.033)**
In Europe	europe	3.816556	-0.4263636	0.2294086	0.2067121
		(0.086)*	(0.550)	(0.738)	(0.770)
In Oceania	oceania	-5.20815	-35.31598	-2.837101	-1.573704
		(0.291)	(0.000)***	(0.048)**	(0.298)

Interaction: constitutional prohibits censorship * judicial review	censor_judrev	5.664842	1.765729	1.310671	0.8572062
		(0.004)***	(0.021)**	(0.024)**	(0.149)
Interaction: constitution guarantees press freedom * constitutional rigidity	press_rigid	2.801103	0.5963958	0.4902594	0.766442
		(0.198)	(0.507)	(0.492)	(0.284)
Interaction: constitutional prohibits Censorship * effective judicial review	censor_judicial	-2.62703	-1.088758	-0.7129651	-0.5319672
		(0.008)***	(0.008)***	(0.005)***	(0.045)
Interaction: constitutional guarantees press freedom * effective jud. Review	press_judicial	-1.59005	-0.8329569	-0.2834118	-0.2081564
		(0.140)	(0.186)	(0.403)	(0.572)
Effective judicial review (judicial review * judicial independence)	judicial	6.692649	2.774427	1.592397	1.122874
		(0.004)***	(0.048)**	(0.021)**	(0.121)
Interaction: constitution guarantees press freedom * dictatorship	press_dictator	14.14109	2.985262	2.107464	2.482373
		(0.023)**	(0.213)	(0.246)	(0.195)
Interaction: constitution prohibits censorship * government effectiveness	censor_effective	-5.28417	-1.231046	-1.556122	-1.406685
		(0.009)***	(0.240)	(0.034)**	(0.051)*
Interaction: constitution prohibits censorship * regulatory quality	censor_regulatory	9.57178	2.5141	1.946914	1.877308
		(0.000)***	(0.002)***	(0.015)**	(0.042)**
Interaction: constitution guarantees press freedom * control of corruption	press_corruption	-4.04274	-2.485171	-1.702165	-0.9700899
		(0.003)***	(0.000)***	(0.000)***	(0.037)**
Interaction: constitution prohibits censorship * electoral process	censor_electoral	-0.68447	-0.0304714	-0.0781621	-0.0181749
		(0.086)*	(0.831)	(0.593)	(0.902)
Interaction: constitution guarantees press freedom * freedom of assoc.	press_association	2.19318	0.8324951	0.6029516	0.5264636
		(0.000)***	(0.000)***	(0.000)***	(0.001)***
Interaction: constitution prohibits censorship * physical integrity rights	censor_phyint	0.61211	0.3120633	0.0780656	-0.0188668
		(0.299)	(0.201)	(0.661)	(0.912)
Interaction: constitution guarantees press freedom * religious freedom	press_relfre	-3.75167	-2.132804	-1.065486	-0.812133
		(0.152)	(0.034)**	(0.312)	(0.387)

n=129
p values in parentheses
rsfindex = additive robust OLS regression; R2=0.9223; P>F=0.000; Mean VIF=23.68
rsf_10 = 10 category robust ordered logit; Pseudo R2=0.6256; P>Chi2=0.000;
rsf_20 = 20 category robust ordered logit; Pseudo R2=0.5165; P>Chi2=0.000;
rsf_round2 = rounded robust ordered logit ; Pseudo R2=0.4057; P>Chi2=0.000;
* significant at 10%; ** significant at 5%; *** significant at 1%
p-values are not corrected to account for general-to-specific reduction.

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